Improving Air Quality in the Washington Metropolitan Region



Fairfax County's Commitment to Air Quality Excellence
"2004 Air Quality Protection Strategy Recommendations"

Interim Report
April 19, 2004

TABLE OF CONTENTS

Executive Summary

CATEGORY A Measures Previously Approved by the Board of Supervisors

Recommendation: Measures and Practices - A1 Clean-fueled Public Transportation Vehicles.

Recommendation: Measures and Practices – A2

Retrofit of diesel school buses.

Recommendation: Measures and Practices – A3

Fleet replacement with hybrids.

Recommendation: Measures and Practices – A4

County Fuel Can Replacement Program.

Recommendation: Measures and Practices – A5

Low or non-VOC Paint Products; Episodic Ban on Code Red Days.

Recommendation: Measures and Practices – A6

Petroleum-Based Pesticides.

Recommendation: Measures and Practices – A7

County Mowing Program, Episodic Ban.

Recommendation: Measures and Practices – A8

Curtail refueling of gas-powered county vehicles on forecast Code Red days.

Recommendation: Measures and Practices - A9

Telework on Code Red Days.

Recommendation: Measures and Practices – A10 Continue to support the County's Telework program.

Recommendation: Measures and Practices – A11

Participation as a Clean Air Partner.

Recommendation: Measures and Practices – A12

Improve efficiency of I-66 Transfer Station scale operations.

Recommendation: Measures and Practices – A13

Pedestrian Improvements in the Richmond Highway Corridor.

Recommendation: Measures and Practices – A14

Pedestrian Improvements Countywide.

CATEGORY B Additional Measures Recommended for BOS Consideration

Recommendation: Public Education and Outreach - B1

Implement an awareness campaign about the dangers of ground level ozone.

Recommendation: Public Education and Outreach – B2

Create a section on the County's web site devoted to air quality.

Recommendation: Public Education and Outreach – B3

Use electronic media including e-newsletters and PSAs to outreach into the community

about air quality issues.

Recommendation: Public Education and Outreach – B4

Enlist community activists and volunteers to promote air quality issues.

Recommendation: Public Education and Outreach – B5

Make the Clean Air Partners' general ozone brochure widely available.

Recommendation: Public Education and Outreach – B6

Distribute to FCPS students a child-friendly brochure about ground level ozone.

Recommendation: Policy Plan – B7

Amend the Air Quality objective and related discussion in the Environment chapter of the

Policy Plan—Phase I

Recommendation: Policy Plan - B8

Amend the Air Quality objective and related discussion in the Environment chapter of the

Policy Plan—Phase II

Recommendation: Codes - B9

Amend Fairfax County Code Chapter 103.

Recommendation: Measures and Practices – B10

Outreach Program for County Residents- Mowing Equipment and Episodic Mowing.

Recommendation: Measures and Practices – B11

County Replacement Program – Two Cycle Mowing Equipment.

Recommendation: Measures and Practices – B12

Green Procurement Policy.

Recommendation: Measures and Practices – B13 Outreach Program for Gas Can Replacement.

Recommendation: Measures and Practices – B14

Green Building.

Recommendation: Measures and Practices – B15

Expand County's Metrochek Program to all County Employees.

Recommendation: Measures and Practices - B16

Provide Additional Transit Service (off-peak and weekend service).

Recommendation: Measures and Practices – B17

Provide Additional Transit Service (Enhanced feeder service to Vienna Metro).

Recommendation: Measures and Practices - B18

Support Rail to Dulles Airport.

Recommendation: Measures and Practices – B19 Pedestrian Improvements on Leesburg Pike

Recommendation: Measures and Practices - B20

Evaluate and expand the County's energy conservation practices and develop a

comprehensive County-wide energy policy.

Recommendation: Measures and Practices – B21

Seek State Enabling Legislation that will minimize the loss of existing forest cover

during land development

CATEGORY C Measures Being Developed by Staff for Future BOS Consideration

Recommendation: Codes – C1

Relief of Personal Property Taxes for Clean Fuel Motor Vehicles.

Recommendation: Public Education and Outreach – C2

Incorporate air quality information into school science curriculum.

Recommendation: Public Education and Outreach – C3 Distribute Clean Air Partners information to businesses.

Recommendation: Public Education and Outreach – C4

Work with Scout groups to incorporate ozone-related efforts into badge requirements.

Recommendation: Public Education and Outreach – C5

Put "Tomorrow is an Ozone Action Day" posters in key locations.

Recommendation: Public Education and Outreach – C6

Prepare an education program for developers.

Recommendation: Measures and Practices – C7

Pursue the purchase of Wind Energy.

Recommendation: Measures and Practices – C8

County taking control of commercial trash pick-up operations.

Recommendation: Measures and Practices - C9

Continue to track the development of alternative fuels and recommend implementation as

appropriate.

Recommendation: Measures and Practices – C10

Continue to explore fuel additives to reduce emissions and recommend implementation

as appropriate.

Recommendation: Measures and Practices – C11

Provide Additional Transit Service (Such as Cross County service).

Recommendation: Measures and Practices – C12 Provide Free Bus Rides on Code Orange Days.

EXECUTIVE SUMMARY

The Air Quality Subcommittee (AQS) of the Fairfax County Environmental Coordinating Committee (ECC) was formed to recommend to the ECC potential County actions to improve air quality through the development of a Countywide Air Quality Management Plan. The objectives of the AQS in the development of this Plan include:

- The development of a Public Education Plan to include an Ozone Action Day Notification Process;
- A review of air quality-related codes and regulations, goals, objectives and policies to determine whether and what modifications might be appropriate; and
- A review of air quality-related strategies and practices to determine whether modifications would be appropriate.

In July 2003, the AQS set up four working groups that examined education and notification activities, planning documents, codes and regulations, and current practices and measures related to air quality.

On January 30, 2004, the AQS presented its fact-based 'findings' and 'conceptual' recommendations documents to the Board's Environmental Committee at its regularly scheduled meeting. The fact-based "findings" document outlined what we knew about air quality in the County and the region. The document is a comprehensive accounting of all air quality-related matters/issues affecting the County (please visit www.fairfaxcounty.gov/opa/airquality/management.htm to view the fact-based findings document).

The development of the conceptual recommendations document was based on the information that was presented in the findings document. The recommendations document was separated into four thematic areas. To the extent possible, each area represented recommendations of what Fairfax County could do, and what could be done on a regional basis to improve air quality. With the exception of the sections addressing planning documents and codes, each part also distinguished, to the extent possible, activities solely related to Ozone Action (Code Red) Days from ongoing activities in effect on all days regardless of the air quality status (please visit www.fairfaxcounty.gov/opa/airquality/management.htm to view the conceptual recommendations document).

On February 25, 2004, the AQS sponsored a community forum to solicit public input on the county's air quality management efforts. The meeting, which featured opening remarks by Board of Supervisors Chairman Gerald E. Connolly, was held in the Board Auditorium of the Fairfax County Government Center. Participants who attended the meeting were given an opportunity to learn about and influence the development of the Air Quality Management Plan for Fairfax County. They provided valuable input to the

findings and conceptual recommendations documents, while also expressing additional issues about air quality and providing ideas for solutions (please visit www.fairfaxcounty.gov/opa/airquality/management.htm to view the public comments that were recorded at the community forum).

The development of the '2004' air quality protection strategy recommendations document was based on the findings and conceptual recommendations documents, as well as the input received from the community forum. The '2004' recommendations shown below have been separated into three major categories. These categories include:

- (A) Measures Previously Approved by the Board of Supervisors (BOS)
- (B) Additional Measures Recommended for BOS Consideration
- (C) Measures Being Developed by Staff for Future BOS Consideration

It is noted that, for some of the recommendations addressed in Category A, the Air Quality Subcommittee is suggesting additional actions to build on what the Board of Supervisors has already done. It is also noted that the Air Quality Subcommittee is continuing to consider additional ideas that were developed internally and/or presented at the February 25 Air Quality Forum. This report should, therefore, be considered as an interim report containing recommendations that the Subcommittee is ready to move forward on (or that are far enough along to develop further) at this time; the Subcommittee's goal in presenting this interim report is to identify recommendations that can be considered now, prior to the 2004 ozone season.

As you know, there is always more to be done. Under the new federal 8-hour ozone standard, the region will be required to make even more stringent emission reductions. A new particulate matter ($PM_{2.5}$) standard will also present a similar challenge. Incorporating these standards into our regional and county planning efforts will not be easy. The Subcommittee will continue to consider new ideas to find ways to improve upon current processes that will make the county even more ready to meet the more stringent standards.

CATEGORY A Measures Previously Approved by the Board of Supervisors

Environmental Coordinating Committee's Air Quality Subcommittee 2004 Air Quality Protection Strategy Recommendation

Recommendation: Measures and Practices - A1 Clean-fueled Public Transportation Vehicles.

Issue:

Reduce emissions from the County's Fairfax Connector bus fleet by converting these vehicles to ultra-low sulfur diesel (ULSD) and adding particulate traps. This strategy will help to reduce emissions at a relatively modest cost.

Board of Supervisors Action:

In September, 2003, the Board of Supervisors approved \$1.48 million to retrofit 148 Fairfax Connector buses with particulate traps and to fuel them with ULSD.

Subcommittee Recommendation for additional actions:

The Air Quality Subcommittee of the Environmental Coordinating Committee recommends that the Board allocate an additional \$150,000 to add particulate traps to 15 RTS II model buses that recently received new transmissions and in some cases new engines.

Rationale:

The original particulate trap program for the 148 Fairfax Connector buses will result in VOC emissions being reduced by 0.01 tons per day and particulate matter reduced by 0.005 tons per day. If the additional particulate traps are installed on the 15 buses, there will be a modest additional reduction in particulate matter.

Lead agency for this response: FCDOT

Coordinating agency (ies) for this response: DVS

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

As noted above, the Board of Supervisors approved \$1.48 million for the initial part of this recommendation in September 2003. The vehicle retrofits are being undertaken by the County's bus service contractor. All retrofits should be completed prior to the 2005 ozone season.

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

If it appears likely that funding will be approved for the additional retrofits (i.e. funds are included in the County Executive's FY 2004 Carryover recommendations), FCDOT staff will work with the County bus service contractor to begin implementing the particulate traps for the 15 RTS II transit buses. This conversion is expected to take 12-15 months from Board approval.

Would the actions identified above have any budget implications? If so, please explain.

Yes, an additional \$150,000 would be needed to install the particulate traps on the 15 RTS II vehicles.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

The Board's actions to date support two of the Countywide Vision Elements: Practicing Environmental Stewardship and Connecting People and Places. The additional efforts suggested by staff would further support these elements.

Additional Comments (if any):

In addition to the transit bus retrofits approved by the Board of Supervisors in September 2003, the Board also approved retrofitting 565 County school buses with diesel oxidation catalysts and 436 school buses with diesel oxidation catalysts and electronic control modules (See Recommendation A2). These retrofits will reduce VOCs by 0.02 tons per day, NOx emissions by 0.08 tons per day and PM by 0.005 tons per day.

Measures and Practices – A1 Continued

Particulate traps require the use of ULSD, which has carried an average premium of \$0.174 per gallon since the county first introduced it at one fuel site early last year. EPA estimates that by the time ULSD becomes the nation-wide highway diesel fuel late in 2006 the cost premium will have dropped to \$0.04 to \$0.05 per gallon. DVS continues to transition all diesel fuel sites to ULSD over a two-year period, ahead of the EPA-required changeover date of September 2006. Instead of carrying a two-tier pricing schedule for diesel fuel at county sites, DVS is spreading the cost premium of the ULSD over all fuel sites and users. The users' fuel budgets, therefore, will absorb the phased-in cost premium of the fuel (about \$1.6M over three fiscal years), and result in no noticeable increase when the fuel is mandated. Use of ULSD with no retrofit devices reduces particulate matter emissions by about 5 percent. Phase-in of the fuel also allows us to become familiar with it and to adjust for any unforeseen difficulties with it in older engines. Five fuel sites now dispense ULSD.

2004 Air Quality Protection Strategy Recommendation

Recommendation: Measures and Practices – A2 Retrofit of diesel school buses.

Issue:

Highway diesel engines are a substantial contributor to ozone precursors. Retrofit of exhaust systems would reduce the effect of these engines while continuing the completion of their missions. The school bus fleet is a well-defined segment of the highway diesel population for which substantial reductions are possible.

Board of Supervisors Action:

In September 2003, the Board of Supervisors approved a carryover of \$2 million to begin the retrofitting of all county and FCPS diesel vehicles. DVS estimates the entire diesel emissions reduction program will cost \$8 million over five to ten years. (VA DEQ has also advised us to expect grant funding of \$1 million this year.) The first phase of the retrofit program will treat 565 school buses with diesel oxidation catalysts (DOCs) and 436 school buses with DOCs and electronic control module reprogramming. All school buses having at least three years of service life remaining (and that did not have a DOC when new) will receive retrofits.

Subcommittee Recommendation for additional actions:

The Subcommittee recommends that the Board of Supervisors continue their support of the county's award winning Diesel Retrofit Program.

Rationale:

Retrofit of exhaust systems with EPA-verified technologies can reduce pollutants emitted by diesel engine school buses. The retrofits approved by the Board of Supervisors will reduce VOC emissions by 0.02 tons per day, NOx emissions by 0.08 tons per day and PM emissions by 0.005 tons per day. Early treatment of school buses yields the additional benefit of reducing exposure of children to the immediate effects of bus exhaust while boarding or exiting buses.

Lead agency for this response: DVS

Coordinating agency(ies) for this response: FCPS; DPSM

Measures and Practices – A2 Continued

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

The Board of Supervisors approved initial funding of this and follow-on projects to retrofit on- and off-highway diesel engines. DPSM awarded two contracts for school bus retrofits on April 2, 2004.

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

All necessary actions are underway. The project is scheduled for completion by the end of FY06.

Would the actions identified above have any budget implications? If so, please explain.

The Board of Supervisors allocated \$2 million in the FY03 carryover to begin the retrofit of diesel engines. The school bus engines are the first to receive retrofits. The Virginia Department of Environmental Quality has advised the County that an additional \$1 million will become available in April 2004 to supplement the funding of school bus retrofits.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

This measure supports the Countywide Vision Element of Practicing Environmental Stewardship by reducing adverse impact on air quality.

Additional Comments (if any):

Completion of the Project will demonstrate the feasibility of these retrofits for possible completion in other jurisdictions.

2004 Air Quality Protection Strategy Recommendation

Recommendation: Measures and Practices – A3 Fleet replacement with hybrids.

Issue:

Cars and other light, gasoline-powered vehicles are a major source of ozone precursors and other pollutants. Our society and economy depend heavily on these vehicles, so we must find ways to reduce their emissions. The County maintains a sizable fleet of these vehicles and can reduce emissions from this fleet. One way to reduce emissions is to replace existing vehicles with lower emission vehicles such as hybrid-electric drive vehicles.

Board of Supervisors Action:

The County favors the purchase of hybrid-drive vehicles when appropriate for replacement of vehicles being retired. In its November 17, 2003 letter to the Metropolitan Washington Air Quality Committee, the Board of Supervisors committed to the continued purchases of hybrid-drive cars.

Subcommittee Recommendation for additional actions:

The Subcommittee endorses existing programs and policies aimed at replacing County cars, light trucks and small vans reaching replacement criteria with lower-emitting vehicles such as hybrid-electric drive vehicles.

Rationale:

The certified emissions levels for the 2004 Toyota Prius are 77% and 87% lower for hydrocarbons and NOx respectively than for a typical mid-size car. The Subcommittee believes that the existing program should be expanded to include such replacements whenever they can fulfill a vehicle mission.

Lead agency for this response: **DVS**

Coordinating agency(ies) for this response: None

Measures and Practices – A3 Continued

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

Fairfax County has committed to the purchase of 57 hybrid drive vehicles (model years 2002-2004) by May 2005. Replacement plans are on track to meet that objective. These 57 vehicles will constitute 1% of the county and FCPS vehicle fleet maintained by DVS. They will constitute 6.6% of the eligible fleet (vehicles for which a commercially available hybrid might fulfill the mission). See "additional comments" for information regarding projected emissions reductions per car for model year 2004 purchases.

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

N/A

Would the actions identified above have any budget implications? If so, please explain.

Purchase of hybrid-electric drive vehicles available today entails an initial capital outlay of about \$6,400 more per vehicle than a comparable conventional gas car. Fuel savings and expected higher recovery value partially offset the capital expense. We project the life cycle cost (purchase + fuel + maintenance - resale) of the hybrid car to be \$3,800 more than the conventional car assuming equal maintenance costs. No reliable data is yet available to project maintenance costs for the hybrids. If maintenance costs are lower than for conventional cars or the hybrids have a longer useful life, as some industry sources assume, the net life cycle cost difference might be lower.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

This measure supports the Countywide Vision Element of Practicing Environmental Stewardship by promoting fuel conservation and reducing adverse impact on air quality.

Measures and Practices – A3 Continued

Additional Comments (if any):

Projected emissions reductions per car for model year 2004 purchases are provided below.

Assumptions

- · Purchase model year 2004 hybrid vehicles instead of 2004 conventional cars
- · Average fleet vehicle travels 7,941 mi/year
- · Emissions from replacement vehicles will be equivalent to emissions from 2004 Toyota Prius
- $\cdot \ Conventional \ replacement \ vehicles \ are \ similar \ to \ Chevy \ Malibu \ and \ have \ emission \ rates \ equivalent \ to \ its \ certification \ for \ 2004$

Emission Rates	NMOG	NOx
2004 EPA cert Chev Malibu (g/mi)	0.0390	0.08
2004 EPA cert Toyota Prius (g/mi)	0.0090	0.01

Emission Reductions

Total NOx Reduced (0.08 g/mi - 0.01 g/mi) * 7941 mi/yr/ 907,185 g/ton = Total NOx Reduced 0.0006 tons/yr per car

$$\label{eq:control_total_voc_reduced} \begin{split} & Total\ VOC\ Reduced = \ (0.039\ g/mi) - 0.009\ g/mi) * 7941/907,185\ g/ton \\ & Total\ VOC\ Reduced = \ 0.0003\ tons/yr\ per\ car \end{split}$$

2004 Air Quality Protection Strategy Recommendation

Recommendation: Measures and Practices – A4 County Fuel Can Replacement Program.

Issue:

A replacement program of portable fuel cans. Portable fuel cans, like those used to fuel lawnmowers, account for a significant amount of VOC forming emissions escaping into the air every day. According to the U.S. Environmental Protection Agency, "...emissions from gas cans emit Volatile Organic Compounds (VOCs) every day—similar to the emissions of the average car..." By using the newer gas cans with features such as shut off valves, harmful gasoline fumes can be reduced by 75%. Another concern with older fuel cans without the shut off valve is the tendency for fuel spillage, with associated adverse groundwater and surface water impacts.

Board of Supervisors Action:

On November 17, 2003, the Board of Supervisors approved a policy requiring that all purchases of fuel containers by the County will be the lower VOC emitting cans, that existing cans should be replaced immediately, and that old cans should be destroyed.

Subcommittee Recommendation for additional actions:

None.

Rationale:

The Board's action has had minimal impact on the budget and is easy to implement. Further, it addresses other environmental issues such as pollution prevention.

Lead agency for this response: FCPA

Coordinating agency(ies) for this response: DPWES, DVS, FCPS

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

The recommendation is currently being implemented by county agencies and implementation is expected to be complete by April 2004, to include the disposal of current fuel cans.

Measures and Practices – A4 Continued

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

Action implemented as specified in the policy approved by the Board of County Supervisors on November 17, 2003.

Would the actions identified above have any budget implications? If so, please explain.

The cost of the lower emitting fuel cans is not a significant amount and the budget implications have been minimal and have been absorbed by current operating fund sources. Cost per can is approximately \$7 for replacement and the cost for disposal of the older can is approximately \$10 per can. With an estimated 300 fuel cans within the county, this equates to about \$5,100.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

Replacing all existing fuel cans with the lower emitting, environmentally friendly cans links directly to the Vision Element, Practicing Environmental Stewardship.

Additional Comments (if any):

While the emissions reduction is minimal for the estimate of the 300 county owned cans there are other benefits to the replacement of the older style cans. Spillage of several ounces of fuel each day from these cans can have a significant negative impact on ground seepage and storm water run off. Fairfax County also wants to be a leader with this program and become a model for the residents to replace their portable fuel cans. If residents replace existing cans with the newer cans there will be a significant reduction in the harmful emissions released. Assuming each single family dwelling contains one fuel can the number of cans replaced would result in 1.7 tons of VOCS avoided per day. (184,156 x .00000922 average reduction per can [tpd] this estimated figure does not include businesses such as landscape and tree companies).

2004 Air Quality Protection Strategy Recommendation

Recommendation: Measures and Practices - A5

Low or non-VOC Paint Products; Episodic Ban on Code Red Days.

Issue:

Implement the use of low(oil based) or non-VOC(latex)paint, which produces lower VOCs into the environment. Deferring the use of VOC-containing paints and coatings on Code Red Days will reduce VOC emissions (an ozone precursor) and overall ground-level formation on these Code Red Days. The county is committed in its efforts to reduce the health and environmental risks associated with paint fumes and its VOC affects on the environment.

Board of Supervisors Action:

On November 17, 2003, the Board of Supervisors approved a policy committing to the purchase/use of low- or non-VOC paints and the deferral of the use of VOC-containing paints/coatings on Code Red Days.

Subcommittee Recommendation for additional actions:

None.

Rationale:

The Board's action has had minimal impact on the budget and is easily implemented. It will result in lower emissions of VOCs and improve indoor air quality by reducing eye or respiratory irritation caused by the exposure to oil based paints.

Lead agency for this response: FCPA

Coordinating agency(ies) for this response: DPWES,FCPS

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

Over the past several years, the Park Authority and Facilities Management Division have implemented this recommendation by reducing the number of structures where the use of oil based products would be used. This was accomplished by installing pre-finished metal roofing panels, pre-finished siding and fiberglass columns. In most situations latex

Measures and Practices – A5 Continued

water based paints are now used in the place of the older oil based paints. In recent years manufacturers have improved latex paints to the point that that oil based paints are not required in most applications. Latex paints are easier to apply, emit less eye and respiratory irritating fumes and require less drying time. Deferring the use of the oil based products still in use in the County on Code Red Days will reduce VOC emissions (an ozone precursor).

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

Action implemented by FCPA and FMD

Would the actions identified above have any budget implications? If so, please explain.

The purchase of paint with a low or non-VOC rating does not increase the cost, in many cases the latex paints are less expensive than the oil based products. In addition, the deferral of projects that require oil based paints on Code Red Ozone days will not have budgetary impacts

Describe the linkage of the actions identified above to the Countywide Vision Elements.

The initiation of these policies, episodic ban on painting on Code Red Days and the purchase policy of low or non-VOC paints, link directly to the Vision Element, Practicing Environmental Stewardship.

Additional Comments (if any):

2004 Air Quality Protection Strategy Recommendation

Recommendation: Measures and Practices – A6 Petroleum-Based Pesticides.

Issue:

The county is committed in its efforts to reduce the health and environmental risks associated with pesticide use and implement pollution prevention strategies. Both the public and the EPA are becoming increasingly concerned about harmful effects on the environment from pesticide use. Anyone who uses a pesticide must consider how that pesticide will affect the environment. From an air quality standpoint, ingredients of petroleum-based pesticides can be reactive in the formation of ozone. Therefore, all petroleum based pesticide applications will be deferred on Code Red Days.

Board of Supervisors Action:

On November 17, 2003, the Board of Supervisors approved a policy committing to the deferral of applications of petroleum-based pesticides on Code Red Days.

Subcommittee Recommendation for additional actions:

None.

Rationale:

The Board's action has had minimal impact on the budget and is easy to implement. It will result in lower emissions of VOCs on Code Red Days.

Lead agency for this response: FCPA

Coordinating agency(ies) for this response: DPWES,FCPS

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

Measures and Practices – A6 Continued

County agencies that routinely utilize pesticides should follow the policy as adopted by the BOS, November 17, 2003 to defer applications of pesticides on Code Red Days. Park Authority Contractors were notified of this policy and an addendum to their current contract will be issued for the 2004 season.

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

Would the actions identified above have any budget implications? If so, please explain.

The deferring application of petroleum based Code Red Days does not amount to a significant cost.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

Initiating a policy on the episodic ban of petroleum-based pesticide application links directly to the Vision Element, Practicing Environmental Stewardship.

Additional Comments (if any):

The FCPA will continue to use and expand the already implemented Integrated Pest Management Program (IPM) and continue to use water based pesticides which will phase out the use of petroleum based pesticides by the agency. These measures will protect the environment beyond episodic days.

2004 Air Quality Protection Strategy Recommendation

Recommendation: Measures and Practices – A7 County Mowing Program, Episodic Ban.

Issue:

An episodic ban of mowing on Code Red Days and reverting turf areas to non-mowed meadows will reduce harmful emission released into the atmosphere. Emissions from lawn mowers and similar outdoor power equipment are a significant source of pollution. Today's small engines emit high levels of carbon monoxide, a colorless, odorless, poisonous gas. They also emit hydrocarbons and nitrogen oxides, pollutants that contribute to the formation of ozone.

Board of Supervisors Action:

On November 17, 2003, the Board of Supervisors approved a policy committing to an episodic ban on the use of gasoline powered lawn and garden equipment on Code Red Days. County and contractor mowing and trimming operations will be deferred on Code Red Days, except on specialized turf areas at golf courses and athletic field complexes.

Subcommittee Recommendation for additional actions:

The Park Authority will continue to review currently mowed areas to determine sites that can be reverted to meadows.

Rationale:

The number of mowed acres in the county by staff and contractors warrant action for the reduction of harmful pollutants. Benefits to the environment outweigh incurred costs.

Lead agency for this response: FCPA

Coordinating agency(ies) for this response: DPWES,FCPA,FCPS

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

The recommendation is currently being implemented by county agencies as identified in the Board of Supervisors November 17, 2003 Action Item. Park Authority Contractors were informed of the new policy through contract addendums. The assessment of current

Measures and Practices – A7 Continued

Park Authority property that can be reverted to a managed meadow will continue to be an on-going process.

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

The episodic mowing recommendation, as identified in the Board of Supervisors November 17, 2003 Action Item, was implemented by the Park Authority for the 2004 mowing season starting April 2004.

Would the actions identified above have any budget implications? If so, please explain.

Reverting currently mowed areas to meadows would reduce mowing contract costs on a site by site basis. Deferring mows on Code Red Days would not have budget implications.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

Reduction of areas mowed as well as reducing emissions on Code Red Days, links directly to the Vision Element, Practicing Environmental Stewardship.

Additional Comments (if any):

This is an episodic measure. The region has averaged 6.3 Code Red Ozone Action days per year in the past three years (2001-2003). Turf equipment is to include lawn mowers and string trimmers utilized by county employees and county contractors. FCPA Contractors have received an addendum to the contract outlining the restriction of turf equipment on Code Red Days.

Environmental Coordinating Committee's Air Quality Subcommittee 2004 Air Quality Protection Strategy Recommendation

Recommendation: Measures and Practices – A8
Curtail refueling of gas-powered county vehicles on forecast Code Red days.

Issue:

Gasoline refueling releases VOCs into the air. Refueling on forecast Code Red days increases the likelihood of an event exceeding the ozone concentration standard.

Board of Supervisors Action:

On November 17, 2003, the Board of Supervisors approved a policy committing to the deferral of refueling of all non-essential gas-powered County vehicles on forecasted Code Red Days.

Subcommittee Recommendation for additional action:

No further action is recommended at this time.

Rationale:

Displacing refueling does not reduce overall emissions, but moves them to a time when they are much less likely to result in ozone formation. Limiting the formation of ozone on forecast Code Red days reduces the ozone hazard and the likelihood of exceeding the ozone concentration standard.

Lead agency for this response: **DVS**

Coordinating agency(ies) for this response: OPA

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

DVS is proceeding with the implementation of this procedure. It will be operational for the 2004 ozone season. DVS would notify Department Directors and agency vehicle coordinators the day before and the day of a forecast Code Red day to remind their drivers to delay refueling until after sunset on the Code Red day. The following business day, DVS would send a report to Department Directors of vehicles in their departments that refueled on the Code Red day. Department Directors would then take corrective action as appropriate.

Measures and Practices – A8 Continued

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

Would the actions identified above have any budget implications? If so, please explain.

The recommendation has no budget implications. Expenses for generating a new Fuel Force report and distributing it to Department Directors can be absorbed with current staffing and IT tasks.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

This measure supports the Countywide Vision Element of Practicing Environmental Stewardship by reducing adverse impact on air quality.

Additional Comments (if any):

2004 Air Quality Protection Strategy Recommendation

Recommendation: Measures and Practices - A9

Telework on Code Red Days.

Issue:

The Fairfax County Board of Supervisors and the County Executive have supported telework on Code Red Days for the county workforce since 2003 and have endorsed the Metropolitan Washington Council of Governments (COG) goal of 20% of the area's eligible workforce teleworking by 2005. Support for telework is one way that the county's leadership is addressing quality of life issues such as traffic congestion and air quality.

Board of Supervisors Action:

On November 17, 2003, the Board of Supervisors reaffirmed their strong support and leadership in the County's Telework program by committing to support and encourage teleworking on Code Red Days.

Subcommittee Recommendation for additional action:

No further action is required.

Rationale:

This policy is strongly supported by the County Board of Supervisors and the County Executive. Teleworking is a cost-effective practice that promotes clean air and reduces traffic congestion, thereby improving the quality of life for those who live and work in the County. Telework expansion reflects the Fairfax County Board of Supervisors' support of the regional goal set by the Metropolitan Washington Council of Governments -- to reach a level of 20 percent of the eligible workforce teleworking one day per week or more by 2005.

Lead agency for this response: County Executive's Office

Coordinating agency(ies) for this response: Environmental Coordinator

Measures and Practices – A9 Continued

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

The County Executive began encouraging teleworking on Code Red Days in 2003 by encouraging approved teleworking employees to telework even if they were not scheduled for that day. This practice continues to be encouraged and supported. The most recent information indicates that more than 673 county employees telework two to four days per month. An expansion plan is underway to raise that number to 1,000 by 2005.

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

Would the actions identified above have any budget implications? If so, please explain.

The Telework Expansion Program is funded within the department budgets of Information Technology and Human Resources. A continued adequate level of funding for the Telework Expansion Project is anticipated.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

Telework is directly linked to the Environmental Stewardship Vision Element. Teleworking reduces vehicle miles traveled, thereby promoting cleaner air and reducing traffic congestion. Cleaner air and reduced traffic congestion improve the quality of life for everyone who lives and works in the County.

Additional Comments (if any):

2004 Air Quality Protection Strategy Recommendation

Recommendation: Measures and Practices – A10 Continue to support the County's Telework program.

Issue:

The Fairfax County Board of Supervisors and the County Executive have supported telework for the county workforce since 1996 and have endorsed the Metropolitan Washington Council of Governments (COG) goal of 20% of the area's eligible workforce teleworking by 2005. Support for telework is one way that the county's leadership is addressing quality of life issues such as traffic congestion and air quality.

Board of Supervisors Action:

In October 2001, the Board of Supervisors reaffirmed their strong support and leadership in the County's Telework program by committing to support the Metropolitan Washington Council of Governments (COG) goal of 20% of the area's eligible workforce teleworking by 2005.

Subcommittee Recommendation for further action:

Continue to support the County's telework program to meet the regional goal of '20% of the eligible workforce by 2005.'

Rationale:

This policy is strongly supported by the County Board of Supervisors and the County Executive. Teleworking is a cost-effective practice that promotes clean air and reduces traffic congestion, thereby, improving the quality of life for those who live and work in the County.

Lead agency for this response: County Executive's Office

Coordinating agency(ies) for this response: Environmental Coordinator

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

Measures and Practices – A10 Continued

In October 2000, the first Washington Area Conference on Telework – or WACOT as it is known – was held at the Fairfax County Government Center. The county sponsored that event together with the Metropolitan Washington Council of Governments (COG). Plans are currently underway for a fall 2004 WACOT event to be held in Fairfax County. This event will specifically challenge major employers in the Washington, D.C. metropolitan area to meet the COG goal of 20% of the area workforce teleworking by 2005.

In October 2001, the county recommitted its telework efforts and launched the Telework Expansion Project. The intent of the project is to increase employee participation to reach a goal of 1,000 teleworkers by 2005. Fairfax County government has approximately 5,000 positions that could be considered eligible for telework out of the county's total permanent workforce. One thousand teleworkers represent 20% of the positions considered eligible for telework.

This 20% goal is aggressive given the fact that Fairfax County government is primarily a service oriented organization. While technology and the county's egovernment initiatives have resulted in more citizens doing business with the county from remote locations, such as their homes, there are many county employees who are required, everyday, to have face-to-face contact with the public.

In October 2003, the County sponsored a Telework Expo in the Government Center Atrium and Forum. The Expo was a way to inform more employees about the benefits and possibilities of telework.

At a joint press conference held on February 11, 2004, Fairfax County Board Chairman Gerald Connolly, COG, and the Greater Washington Board of Trade announced a new effort to encourage 50,000 more commuters to telework by 2005. This program, which is aimed at large employers and federal agencies, includes customized training programs and free trials at telework centers; it marks the first time that public and private organizations in the metro area have come together to promote teleworking.

What progress has the county made since October of 2001? Almost every department has teleworkers--the number of teleworkers rose from 138 in December 2001 to over 673 in March of 2004. Job categories are increasingly varied. Sample job titles for teleworkers include analysts of all types, administrative assistants, accountants, programmers, social workers, inspectors, engineers, public safety personnel, and recreation and park specialists. Directors and assistant directors telework. The range of jobs widens as more employees discover there are at least eight hours of work they can do from another location – once a week or every other week.

Measures and Practices – A10 Continued

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

Would the actions identified above have any budget implications? If so, please explain.

The Telework Expansion Program is funded within the department budgets of Information Technology and Human Resources. A continued adequate level of funding for the Telework Expansion Project is anticipated.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

Telework is directly linked to the Environmental Stewardship Vision Element. Teleworking reduces vehicle miles traveled, thereby promoting cleaner air and reducing traffic congestion. Cleaner air and reduced traffic congestion improve the quality of life for everyone who lives and works in the County.

Additional Comments (if any):

Environmental Coordinating Committee's Air Quality Subcommittee 2004 Air Quality Protection Strategy Recommendation

Recommendation: Measures and Practices – A11 Participation as a Clean Air Partner.

Issue:

Fairfax County government has been a member of Clean Air (ENDZONE) Partners since 1998, and has been proactive in efforts to inform county employees and residents about air quality programs and ways to reduce air pollution. The county has included information about air quality issues on its Web site. The county has a notification program that involves the posting of Ozone Action Day forecasts on Fairfax County Government Cable Television Channel 16, and the county Web site, as well as sending email notifications to all county employees. These messages include appropriate actions to take to reduce contributions to ozone formation. Some actions currently practiced by Fairfax County government when a Code Red Day is forecast include the refueling of vehicles after sunset; the restriction on the use of non-essential motorized operating equipment; encouraging employees to telework, and teleconference to participate in meetings off site; and the offering of free trips on the Fairfax Connector and on Metrobus, in cooperation with other local jurisdictions in the region.

Board of Supervisors Action:

On November 17, 2003, the Board of Supervisors reaffirmed their commitment to participate as a regional Clean Air Partner.

Subcommittee Recommendation for Further Action:

No further action is required.

Rationale:

This endeavor is strongly supported by the County Board of Supervisors and the County Executive. Clean Air Partners is a cost-effective program that helps the County and its residents to promote clean air practices, thereby improving the quality of life for those who live and work in the County. On Tuesday, Nov. 4, at the University Conference Center and Inn at the University of Maryland's College Park campus, Fairfax County was given an honorable mention by Clean Air Partners in the category of "Outstanding Ozone Action Days Program." The county was recognized for its efforts in establishing voluntary actions to reduce ground-level ozone through an Ozone Action Days plan, its efforts to encourage and facilitate public awareness of air quality issues, and its efforts to encourage employees to take personal voluntary actions.

Measures and Practices – A11 Continued

Lead agency for this response: <u>County Executive's Office</u> Coordinating agency(ies) for this response:

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

Fairfax County has been a Clean Air Partner since 1998. This measure continues to be promoted.

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

Would the actions identified above have any budget implications? If so, please explain.

Clean Air Partner membership is funded within the department budget of the County Executive's Office. The annual membership fee is approximately \$300.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

Clean Air Partners is linked to the Environmental Stewardship Vision Element. Clean Air Partners promotes air quality related pollution prevention practices, thereby promoting cleaner air. Cleaner air improves the quality of life for everyone who lives and works in the County.

Additional Comments (if any):

2004 Air Quality Protection Strategy Recommendation

Recommendation: Measures and Practices – A12 Improve efficiency of I-66 Transfer Station scale operations.

Issue:

Improve efficiency of I-66 Transfer Station scale operations to reduce idling of trucks and thus reduce air emissions from these vehicles.

Board of Supervisors Action:

In 2003, the Board of Supervisors authorized more than \$50,000 for the construction of an additional scale at the I-66 Transfer Station. The action was taken to reduce the idling time of trucks, thus reducing vehicle emissions.

Subcommittee Recommendation for Further Action:

No additional action is required at this time.

Rationale:

Diesel vehicles are major contributors to the air quality concerns in the County. Idling of trucks unnecessarily adds to the air emissions in County. At times the I-66 Transfer Station could not process incoming vehicles without a line forming to access the scale. Vehicles could sit idling in line for varying amounts of time, unnecessarily adding to the air emissions.

Lead agency for this response: <u>DPWES - Solid Waste Disposal & Resource</u> Recovery

Coordinating agency(ies) for this response: N/A

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

This recommendation was implemented in 2003. A second scale was added to the truck weighing facility at the transfer station.

Measures and Practices – A12 Continued

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

N/A

Would the actions identified above have any budget implications? If so, please explain.

N/A

Describe the linkage of the actions identified above to the Countywide Vision Elements.

This recommendation directly links to the County's Vision element for Environmental Stewardship.

Additional Comments (if any):

Environmental Coordinating Committee's Air Quality Subcommittee 2004 Air Quality Protection Strategy Recommendation

Recommendation: Measures and Practices – A13
Pedestrian Improvements in the Richmond Highway Corridor.

Issue:

Reduce emissions from single occupant automobiles by constructing additional pedestrian improvements, including trails, sidewalks, and enhanced crosswalks, in the Richmond Highway corridor. Such improvements will encourage residents and employees in the corridor to walk and use transit to travel to their daily activities, rather than driving. Staff has evaluated the missing links in the pedestrian network along Richmond Highway and is now seeking funding to construct these improvements. Approximately \$16 million is needed and approximately \$8 million has been funded through various sources.

Board of Supervisors Action:

In 2003 and 2004 the Board of Supervisors approved the use of approximately \$2 million in VDOT revenue sharing funds and NVTC aid for pedestrian improvements in the Richmond Highway corridor. In addition, the Richmond Highway Public Transportation Initiative was included in the Board's Four Year Transportation Program.

Subcommittee Recommendation for additional actions:

None at this time.

Rationale:

The Richmond Highway Public Transportation Initiative is designed to greatly improve the transit service in the Richmond Highway corridor. As part of this project, the pedestrian facilities along the corridor will be upgraded to facilitate pedestrian traffic in the corridor and make transit stops more accessible. Currently, the pedestrian facilities in the corridor are non-existent or in poor condition. There are significant gaps in the network that create barrier and/or a disincentive to residents and employees to use transit or simply walk from one place to another. A total of 16 miles of pedestrian improvements are needed. Emissions benefits for these improvements are being calculated.

Lead agency for this response: FCDOT

Coordinating agency (ies) for this response: DPWES, VDOT

Measures and Practices – A13 Continued

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

This recommendation is in the process of being implemented. County staff is currently working on an implementation plan and schedule for the entire Richmond Highway Public Transportation Initiative. It is expected that the entire plan will be implemented over a period of several years as funding becomes available.

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

N/A

Would the actions identified above have any budget implications? If so, please explain.

The Board has already approved funding for approximately \$2 million in pedestrian improvement in the Richmond Highway corridor. Approximately an additional \$6 million is included in the Board's Four Year Transportation Program.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

This project addresses two of the Countywide Vision Elements: Practicing Environmental Stewardship and Connecting People and Places.

Additional Comments (if any)

2004 Air Quality Protection Strategy Recommendation

Recommendation: Measures and Practices – A14 Pedestrian Improvements Countywide.

Issue:

Reduce emissions from single occupant automobiles by constructing additional pedestrian improvements, including trails, sidewalks, and enhanced crosswalks at locations throughout the County. Such improvements will encourage residents and employees to walk and use transit to travel to their daily activities, rather than drive.

Board of Supervisors Action:

The County's adopted Capital Improvement Program includes \$5 million for pedestrian improvements in a proposed bond referendum for Fall 2004. In addition, the Board included approximately \$1.7 million in its Four Year Transportation Program for pedestrian improvements. Combined, these funds will be used to fund nearly seven miles of pedestrian improvements throughout the County.

Subcommittee Recommendation for additional actions:

None at this time.

Rationale:

In July 2002, the Board of Supervisors approved recommendations to improve pedestrian facilities throughout the County. Upgraded pedestrian facilities will facilitate pedestrian traffic throughout the County and make transit stops more accessible. Currently, the pedestrian facilities in the County are often non-existent or in poor condition. Significant gaps in the pedestrian network create barriers and/or a disincentive to residents and employees to use transit or simply walk from one place to another. A pedestrian task force has been established to identify priority pedestrian improvements. If approved by the voters, this recommendation will fund a portion of the County's pedestrian needs. Emissions benefits for these improvements are being calculated.

Lead agency for this response: FCDOT

Coordinating agency (ies) for this response: DPWES, VDOT

Measures and Practices – A14 Continued

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

As part of the CIP, the Board of Supervisors has included \$5 million in a Fall 2004 Transportation referendum for pedestrian improvements. In addition, approximately \$1.7 million in Countywide pedestrian improvements are included in the Board's Four Year Transportation Program. County staff is currently working on an implementation plan and schedule for the entire Four Year Transportation Program. Subsequently, staff will develop an implementation schedule for the \$5 million in pedestrian improvements included in the referendum.

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

County staff is currently working on an implementation plan and schedule for the entire Four Year Transportation Program. Subsequently, staff will develop an implementation schedule for the \$5 million in pedestrian improvements included in the referendum.

Would the actions identified above have any budget implications? If so, please explain.

The Board has already approved funding for approximately \$1.7 million in pedestrian improvement as part of its Four Year Transportation Program. In addition, a Fall 2004 transportation referendum will include \$5 million for Countywide pedestrian improvements.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

These projects address two of the Countywide Vision Elements: Practicing Environmental Stewardship and Connecting People and Places.

Additional Comments (if any):

The pedestrian task force is charged with developing a ten-year pedestrian facility capital plan. This plan can be expected to identify a significant need for additional investment in pedestrian facilities.

CATEGORY B Additional Measures Recommended for BOS Consideration

Environmental Coordinating Committee's Air Quality Subcommittee 2004 Air Quality Protection Strategy Recommendation

Recommendation: Public Education and Outreach - B1

Issue:

As a major regional employer, with a workforce of more than 11,000 employees, Fairfax County government has an obligation to model practices that contribute to the improvement of the air quality in the region. Only by educating the County's employees of the health issues associated with air pollution, specifically ground level ozone, and the importance of modifying certain behaviors in order to help improve the region's air quality can the County hope to change attitudes and gain buy-in from these employees on and off the clock.

Subcommittee Recommendation:

Implement an awareness campaign about the dangers of ground level ozone and the benefits of taking action to minimize the County's and individuals' contributions to the overall ground level ozone levels. Target this campaign at Fairfax County employees.

Rationale:

Educating County employees about the benefits of taking action to reduce ground level ozone may help to convince them to modify their behavior to reduce ozone at all times.

Lead agency for this response: OPA

Coordinating agency(ies) for this response: AQS

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

This recommendation is in the process of being implemented. The following steps have been planned for Ozone Season 2004:

 An article is planned for the Courier employee newsletter in May that will include information about the various color coded levels used to let the public know about the air quality and ways in which they should modify their behavior on code orange or code red days. It will also discuss how making certain lifestyle changes for individuals and policy changes for the County will help to reduce emissions of NOx and VOCs that contribute to the poor air quality.

Public Education and Outreach B1 Continued

- There is an ongoing effort to expand the information on the County's air quality Web pages, including this same information.
- In addition to the practice of sending alerts to staff via NewsLink to notify them of
 episodic actions to take, begin to use NewsLink as a tool to send educational
 messages about ground level ozone, how it affects ones health and how to help
 fight it.
- Electronically distribute the Clean Air Partners general information brochure, "We are All Part of the Solution" to agency directors in early May and encourage them to discuss air quality issues with their staff as they pertain to their department. Include information about ridesharing, teleworking and transit services in the e-mail. Send the brochure along with a memo from the County Executive regarding the County's air quality best practices. Also distribute a file of a poster that can be printed out and prominently posted during ozone season to remind employees of actions to take to reduce emissions and ground level ozone.
- Work with the telework coordinator to find ways to expand promotion of telework.
 Use information such as specific percentages of teleworkers in each agency to encourage supervisors to promote behaviors like telework on Ozone Action Days in order to drive up participation.
- Include an air quality informational message in early May on the pay advice sent semiweekly to employees.

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

See above.

Would the actions identified above have any budget implications? If so, please explain.

Each of the methods listed above would be completed using existing staffing levels and, due to the electronic nature of the communications, this recommendation would have little budgetary impact.

Public Education and Outreach B1 Continued

Describe the linkage of the actions identified above to the Countywide Vision Elements.

Educating County employees about actions that minimize ozone and making them aware of the importance of taking these actions links directly to the Vision Element, Practicing Environmental Stewardship.

Additional Comments (if any):

Environmental Coordinating Committee's Air Quality Subcommittee 2004 Air Quality Protection Strategy Recommendation

Recommendation: Public Education and Outreach - B2

Issue:

The content on the County's Web site pertaining to air quality initiatives and ozone awareness currently is segmented on several different agencies' sites. In the interest of making it more accessible and usable, it should be more consolidated or at least easier to navigate.

Subcommittee Recommendation:

Create a section on the County's Web site devoted to air quality, which can link together the content on this subject currently scattered throughout the County's site on various agency pages. In addition, enhance the content about air quality issues that is found on the County's Web site, improving our links to external (government) sites that have useful related information.

Rationale:

Time is a valuable commodity for many people. Streamlining the Web content should help increase the ease with which people can retrieve the info they need and hopefully drive up the number of visits to the County Web site and the awareness of those reading it.

Lead agency for this response: OPA

Coordinating agency(ies) for this response: DOT; DPWES; HD; FCPA

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

• This recommendation is in the process of being implemented. Currently there are three pages pertaining to air quality, which are centrally located under the environment heading on the County Web site. Currently, these pages address the efforts of the Air Quality Subcommittee, including the work plan and various documents that are central to the efforts of the group.

Public Education and Outreach - B2 Continued

- The site has information about what measures and practices are being adopted by the County to help reduce ground level ozone, and it provides information regarding the regional process to improve air quality and the EPA SIP approval process.
- Links are being established to pull together this central air quality information and the information found on the Health Department, transportation, DPWES, and Park Authority pages.
- Information is being expanded on some of these departmental sites, such as Health Department and the Natural Resources section of the Park Authority's site.
- The air quality main page currently has a list of links to relevant sites. This should be expanded and refined to include links to the most useful and well-maintained government sites.
- Electronic versions of all the brochures produced by Clean Air Partners and COG should be placed on the County's Web site to view or download.
- As it includes information about what actions the County is taking to reduce ozone levels, it should be expanded to raise awareness about the issue and what businesses and residents can do.
- The expansion of the site is currently underway and has been since January of 2004. The efforts to expand it will be ongoing throughout the ozone season this year and beyond as necessary.

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

See above.

Would the actions identified above have any budget implications? If so, please explain.

Each of the methods listed above would be completed using existing staffing levels and, due to the electronic nature of the communications, would have little budgetary impact.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

Public Education and Outreach - B2 Continued

Using the Web site to help spread awareness of the importance of taking ozone reducing actions links directly to the Vision Element, Practicing Environmental Stewardship.

Additional Comments (if any):

Environmental Coordinating Committee's Air Quality Subcommittee 2004 Air Quality Protection Strategy Recommendation

Recommendation: Public Education and Outreach - B3

Issue:

One of the greatest hurdles to reducing the levels of ground level ozone in our area is raising the awareness of residents about how serious the pollution problem is and the potential harm it can do to the health of those who live here. Equally difficult is conveying to the public ways in which they can minimize their contributions to the overall poor air quality.

Subcommittee Recommendation:

Use a variety of electronic media including e-newsletters and PSAs to outreach into the community about air quality issues.

Rationale:

Sending information directly to e-mail boxes of a targeted group of people through newsletters to which they themselves have subscribed can help ensure that key messages about ground level ozone and air quality initiatives reach them and hopefully impact their behavior in ways that can reduce ground level ozone.

Lead agency for this response: OPA

Coordinating agency(ies) for this response: AQS

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

This recommendation has not yet been implemented, but implementation is being timed to coincide with the beginning of the Ozone season in May 2004.

- Send News to Use subscribers an article in May about ozone awareness that could be used by HOA's in their newsletters and/or on their Web sites. In the article provide Web address, e-mail address and phone number for requests for additional information.
- Contact the various County chambers of commerce to request that they include an
 e-mail message in their e-newsletters in late April informing chamber members of
 actions they can take in their business practices to improve the regional air quality.

Public Education and Outreach B3 Continued

- Contact environmental groups such as Northern Virginia Soil and Water Conservation District and the Green Breakfast Group in April to ask them to include items about ozone awareness in their May/June print and/or e-newsletters.
- Place programming on cable Channel 16 to educate County residents about issues associated with ground level ozone in the environment. Work with Clean Air Partners to use their public service announcements or brief programs on Channel 16. Ads would run during the ozone season late May through September.
- Approach community groups and associations such as the Fairfax Federation to enlist them to place information on their Web sites.

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

See above.

Would the actions identified above have any budget implications? If so, please explain.

Each of the methods listed above would be completed using existing staffing levels and with existing programs and PSAs. Due to the electronic nature of the communications, this would have little budgetary impact.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

Using newsletters, television and other information tools to reach out to the public and businesses to help spread awareness of the importance of taking ozone reducing actions links directly to the Vision Element, Practicing Environmental Stewardship.

Additional Comments (if any):

Environmental Coordinating Committee's Air Quality Subcommittee 2004 Air Quality Protection Strategy Recommendation

Recommendation: Public Education and Outreach – B4

Issue:

The issue of ground level ozone and its increasing levels does not seem personal and meaningful to many people in this region. They don't recognize the impact it can have on them and their loved ones.

Subcommittee Recommendation:

Enlist community activists and volunteers to talk about Air Quality issues at public functions, to hand out brochures and to lend some credence to the discussion, as informed concerned advocates for cleaner air.

Rationale:

Sometimes the most effective way to convey a message is with a personal endorsement from someone trustworthy or familiar. The individuals who would be asked to share air quality information with others have been identified as outgoing and committed due to their current level of involvement with various related issues.

Lead agency for this response: OPA

Coordinating agency(ies) for this response: DOT; FCPA; DPZ

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

This recommendation has not yet been implemented, but implementation would be timed to coincide with the beginning of the Ozone season in May 2004.

- Enlist members of the Friends of the Parks group, the Transportation Advisory
 Commission, EQAC and local District Councils to share information about air quality and
 hand out brochures about it whenever possible at public gatherings.
- Recruitment of these representatives would begin in April 2004 so that they could begin outreach during ozone season.

Public Education and Outreach B4 Continued

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

See above.

Would the actions identified above have any budget implications? If so, please explain.

Minimal. The only expense would come with the printing of handouts for this group to use.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

Using speakers to reach out to the public to help spread awareness of the importance of taking ozone reducing actions links directly to the Vision Element, Practicing Environmental Stewardship.

Additional Comments (if any):

2004 Air Quality Protection Strategy Recommendation

Recommendation: Public Education and Outreach - B5

Issue:

One of the greatest hurdles to reducing the levels of ground level ozone in our area is raising the awareness of residents about how serious the pollution problem is and the potential harm it can do to the health of those who live here. Equally difficult is conveying to the public ways in which they can minimize their contributions to the overall poor air quality.

Subcommittee Recommendation:

Print copies of the Clean Air Partners' brochure on general ozone facts "We are all part of the solution" and make it available at a variety of point of contact sites throughout the County. Add a sticker or text to the brochure personalizing it to Fairfax County and promoting the County's Web site and the regional ozone hotline.

Rationale:

This brochure would allow us to get many of the key messages about this issue in front of the public in places they frequent. It advises about what the specific color-coded levels mean in terms of activities to limit and impacts on our health, as well as outlining steps that people can take to reduce emissions of NOx and VOCs, therefore reducing ozone.

Lead agency for this response: OPA

Coordinating agency(ies) for this response: DOT; HD; FCPA, FCPL, CRS, FCPS

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

This recommendation has not yet been implemented, but implementation would be timed to coincide with the beginning of the Ozone season in 2004. Due to changes that Clean Air Partners is planning to make to the text of the brochure, printing of our copies would not be able to take place until at least mid-May. Once the brochure is printed the following distribution steps would be taken.

• The Clean Air Partners general brochure "We are all part of the solution" would be placed in brochure racks and/or on information counters in FCPA RECenters, Health Department Clinics, Fairfax County governmental centers, County office buildings, County community centers, libraries and school offices beginning during the 2004 ozone season. The

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Public Education and Outreach B5 Continued

distribution of these brochures would be coordinated through the use of the interoffice mail system with the assistance of the agencies involved.

- The management in area malls, grocery stores and at Metro stations would be contacted in order to get their permission to include the Clean Air Partners general brochure "We are all part of the solution" in their information areas and brochure racks, at least during the ozone season. This brochure could be piggybacked on the distribution of Fairfax Connector brochures in many of these locations to lower the cost to distribute them. Also, staff could work with Fairfax Connector staff to distribute brochures advertising free bus rides on Ozone Action Days.
- Brochures could be placed in the interior of Fairfax Connector buses promoting the free
 bus rides on all Northern Virginia bus routes on Ozone Action Days. Also, posters could
 be placed in high density parking areas promoting free connector rides (e.g., places like the
 Government Center parking lots, parking garages in Crystal City or the parking lots at the
 Pentagon). This would encourage non-transit users to try transit.

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

See above.

Would the actions identified above have any budget implications? If so, please explain.

There would be some expense required to print the brochures needed (approximately \$3,000), as well as for the expense to distribute to non-County sites.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

Using brochures to reach out to the public to help spread awareness of the importance of taking ozone reducing actions links directly to the Vision Element, Practicing Environmental Stewardship.

Additional Comments (if any):

Environmental Coordinating Committee's Air Quality Subcommittee 2004 Air Quality Protection Strategy Recommendation

Recommendation: Public Education and Outreach - B6

Issue:

Children is one of the groups that is most susceptible to lung damage as a result of high concentrations of ground level ozone. It is important to find a way to educate the children and their parents about the dangers to them on Code Orange and Code Red Days so that they will be willing to work to reduce ground level ozone levels.

Subcommittee Recommendation:

Develop a child-friendly flyer/brochure that emphasizes key messages about ground level ozone, and how to behave on ozone action days. Then, distribute it to all children enrolled in Fairfax County Public Schools.

Rationale:

This brochure would allow us to get many of the key messages about this issue directly in the hands of one of the most effected audiences, children. The backpack flyer would reach 175,000 children and their parents. Also for the Limited English Proficiency audience hearing this message from their children may be one of very few ways, if not the only way, it reaches them.

Lead agency for this response: OPA

Coordinating agency(ies) for this response: FCPS

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

This recommendation has not yet been implemented, and due to changes being made to Clean Air Partners' regional materials and message, we may have a difficult time implementing this in a timely fashion for this year. We would want our message and terminology to match what is being used regionally, and this decision is not anticipated until late April or early May.

In order to penetrate the schools, the fliers would need to be printed and to the schools for distribution the second week of May in order to be distributed in June. Unfortunately, if some crucial information is not available until late April or even early May, it would be very difficult to meet this timeline and reach the kids before the school year is complete.

Bearing this in mind, this is an excellent recommendation to consider for next year.

Public Education and Outreach B6 Continued

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

See above.

Would the actions identified above have any budget implications? If so, please explain.

There would be some expense required to print the fliers for the 175,000 school children in Fairfax County. Depending on whether we use uncoated or coated (glossy) paper, the price could range from \$5,000 to \$8,500.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

Using brochures to reach out to the County's children and their parents to help spread awareness of the importance of taking ozone-reducing actions links directly to the Vision Element, Practicing Environmental Stewardship.

Additional Comments (if any):

2004 Air Quality Protection Strategy Recommendation

Recommendation: Policy Plan – B7

Amend the Air Quality objective and related discussion in the Environment chapter of the

Policy Plan—Phase I

Issue:

The Policy Plan volume of the Comprehensive Plan contains a significant amount of policy guidance related to air quality. Direct references to air quality can be found in the Environment chapter of the Policy Plan, while objectives and policies that are related to air quality (but not prefaced that way) can be found elsewhere in the Environment chapter and in the Land Use and Transportation chapters of the Policy Plan. In addition, the "Concept for Future Development and Land Classification System," which was used in the development of Area Plan guidance, supports development decisions that will concentrate development in transit-oriented, pedestrian-friendly growth centers. However, the text leading into the Air Quality objective in the Environment chapter is outdated and incomplete. Further, the visibility and effectiveness of the Air Quality objective could be strengthened by adding policy language referencing other, related objectives and policies, and the utility of this section could be strengthened by identifying air quality-beneficial actions that can be applied by developers through commitments negotiated during the zoning process.

Subcommittee Recommendation:

The Policy Plan should be amended to do the following:

- Update the introductory text under the "Air Quality" section of the Environment chapter. Include a discussion regarding the Metropolitan Washington Air Quality Committee/Council of Governments regional air quality planning process, transport issues, and regulatory changes and their implications to Fairfax County.
- Add one or more policies and/or revise/augment existing policies under the Air Quality objective in order to reference other Policy Plan objectives and policies that have a relationship to air quality and to identify/encourage air quality-beneficial actions that can be applied by developers. This will provide a foundation that can be used in negotiations for proffers for air quality-sensitive measures. It is anticipated that the revised Plan text would include, but not necessarily be limited to, the following:
 - o Support for the concentration of growth in mixed use, transit-oriented centers;
 - Support for mixed use developments providing opportunities for people to live near where they work, shop, and recreate;
 - Support for nonmotorized transportation, including the construction of trails, the
 provision of clearly marked bicycle and pedestrian features, the provision of
 bicycle parking for retail, office, and recreational facilities, and the provision of
 changing/shower facilities in office buildings;

Policy Plan – B7 Continued

- o Support for tree preservation and planting efforts;
- Support for the provision of transit facilities;
- Support for parking management programs in mixed use centers to encourage transit and high occupancy vehicle use;
- Support for the provision of park-and-ride lots;
- Support for the improvement of pedestrian access to transit facilities and commercial, public facility, and recreational opportunities;
- o Support for telework efforts and flexible work schedules;
- Support for transit use incentives;
- Support for ridesharing/carpooling efforts;
- Support for other transportation demand management efforts (e.g., shuttle buses to transit facilities);
- Support for transportation management associations for the purpose of reducing single occupant automobile use;
- Support for episodic measures (e.g., no mow) that can be pursued on Code Red days;
- Support for the use of low-emissions maintenance and landscaping equipment;
 and
- Support for energy conservation measures.

Rationale:

While existing air quality-related guidance in the Policy Plan is strong, it is fragmented. Further, introductory text to the air quality objective in the Environment chapter of the Plan is outdated and incomplete. Enhancements to the air quality objective and associated text can serve to provide a stronger Plan focus on air quality matters and to facilitate air quality-sensitive development.

Lead agency for this response: DPZ

Coordinating agency(ies) for this response: DOT; Air Quality Subcommittee

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

The Policy Plan already contains a significant amount of policy guidance that is supportive of air quality improvement. However, the recommendation to enhance the existing air quality section has not been implemented and is not being pursued at this time.

Policy Plan – B7 Continued

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

The Board of Supervisors would first need to authorize the consideration of an Out-of-Turn Plan Amendment. Staff from DPZ, in collaboration with other agencies, would then prepare a proposed Plan amendment and staff report. It is anticipated that there would be coordination with the Planning Commission's Environment Committee prior to public hearings. Public hearings would be held by the Planning Commission and Board of Supervisors prior to Board adoption of any amendment.

Staff anticipates a time frame of between six and twelve months after Board authorization for adoption of a Plan Amendment.

Would the actions identified above have any budget implications? If so, please explain.

The Plan Amendment would be coordinated and prepared by existing staff; no new resources would be needed. However, because of finite staff resources, work on this effort would divert the attention of applicable staff members from other planning and environmental efforts.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

The strengthening of air quality policy guidance in the Policy Plan will support "Building Livable Spaces" (encouraging "distinctive 'built environments' that create a sense of place, reflect the character, history and natural environment of the community . . .") and "Practicing Environmental Stewardship (". . . use all resources wisely and to protect and enhance the County's natural environment and open space. . . .")

Additional Comments (if any):

This recommendation addresses the first phase of Comprehensive Plan revisions related to the Air Quality Management planning effort. A second phase of revisions (to include an explicit recognition of the Air Quality Management Plan within Policy Plan guidance and to support specific Air Quality Management Plan recommendations) would not be appropriate until the completion of the Air Quality Management Plan.

2004 Air Quality Protection Strategy Recommendation

Recommendation: Policy Plan – B8

Amend the Air Quality objective and related discussion in the Environment chapter of the

Policy Plan—Phase II

Issue:

While the air quality management planning effort is expected to produce a series of recommendations that can be considered prior to the 2004 ozone season, the Air Quality Management Plan will not be completed in this time frame; it is possible that a significant amount of time will be needed to complete this effort. While the Policy Plan revisions proposed through the "Phase I" amendment need not wait for completion of this effort, two components of desirable Plan revisions need to wait until this effort has been completed. These components are: (1) the addition of a policy under the air quality objective of the Environment chapter to recognize the Air Quality Management Plan as a mechanism to implement air quality policies that are not associated with the land use planning and zoning processes; and (2) the addition and/or revision of policies as may be appropriate to support Air Quality Management Plan recommendations that were not identified during the development of the Phase I Plan Amendment.

Subcommittee Recommendations:

- (1) Upon completion of the Air Quality Management Plan, the Air Quality section of the Environment chapter of the Policy Plan should be amended to provide explicit policy recognition of this Plan. This recognition will serve to provide an official endorsement, by Plan policy, of the actions identified within the Air Quality Management Plan.
- (2) Upon completion of the Air Quality Management Plan, determine if further changes to the Policy Plan would be appropriate to support Air Quality Management Plan recommendations that were not addressed through the Phase I Policy Plan amendment and for which a general endorsement (per the first recommendation above) would not be sufficient.

Rationale:

The recognition of the Air Quality Management Plan through explicit Policy Plan support would serve to strengthen institutional support for this effort and the actions recommended as part of this effort. The review of the completed planning document to identify additional Policy Plan revisions that may be appropriate recognizes that appropriate Plan revisions may not all be captured during the "Phase I" Plan amendment process. The Air Quality Management Plan development process is likely to be an evolutionary one requiring flexibility in review and policy support.

Lead agency for this response: **DPZ**

Coordinating agency(ies) for this response: Air Quality Subcommittee

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

This recommendation cannot be implemented until the Air Quality Management Plan is complete.

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

Upon completion of the Air Quality Management Plan, the Air Quality Subcommittee should identify additional revisions, if any, to the Policy Plan that would be appropriate and recommend Board of Supervisors' authorization of an Out-of-Turn Plan Amendment to consider these revisions as well as an overall policy endorsement of the Air Quality Management Plan itself. Staff from DPZ, in collaboration with other agencies, would then prepare a proposed Plan amendment and staff report. It is anticipated that there would be coordination with the Planning Commission's Environment Committee prior to public hearings. Public hearings would be held by the Planning Commission and Board of Supervisors prior to Board adoption of any amendment.

Staff anticipates a time frame of between six and twelve months after Board authorization for adoption of a Plan Amendment.

Would the actions identified above have any budget implications? If so, please explain.

The Plan Amendment would be coordinated and prepared by existing staff; no new resources would be needed. However, because of finite staff resources, work on this effort would divert the attention of applicable staff members from other planning and environmental efforts.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

As would be the case with the proposed Phase I Policy Plan amendment, the strengthening of air quality policy guidance in the Policy Plan will support "Building Livable Spaces" (encouraging "distinctive 'built environments' that create a sense of place, reflect the character, history and natural environment of the community . . .") and "Practicing Environmental Stewardship (". . .

Policy Plan – B8 Continued

use all resources wisely and to protect and enhance the County's natural environment and open space. \dots ")

Additional Comments (if any):

None.

2004 Air Quality Protection Strategy Recommendation

Recommendation: Codes - B9

Amend Fairfax County Code Chapter 103.

Issue:

Fairfax County Code Chapter 103 contains references to a local Air Pollution Control Board which no longer exists. In addition, it refers to a Division of Air Pollution Control in the Health Department that no longer exists as a separate division. Finally, the Federal and State regulations and emissions standards referenced in Chapter 103 are outdated.

Subcommittee Recommendation:

The Subcommittee endorses amendments to Chapter 103 to remove obsolete text and update references to Federal and State laws and regulations.

Rationale:

Amendments to Chapter 103 will eliminate confusing, obsolete textual references and shift the focus to the efforts Fairfax County is undertaking with regard to air quality and the regulations the County seeks to enforce that are more stringent than provisions of Federal and State law.

Lead agency for this response: <u>Fairfax County Health Department</u> Coordinating agency(ies) for this response: <u>OCA</u>; <u>Air Quality Subcommittee</u>

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

This recommendation has not yet been implemented.

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

Staff first needs to prepare the proposed amendments. Amendments to Chapter 103 then require the approval of the State Air Pollution Control Board (SAPCB). In approving the amendments, the SAPCB will consider, among other criteria, whether the provisions of the local ordinance are at least as strict as state regulations and whether adequate local resources will be committed to

Codes – B9 Continued

enforcing the proposed ordinance. The time frame for obtaining the SAPCB approval is unknown.

Once the SAPCB approval is obtained, the amendments to Chapter 103 must be advertised for a public hearing before the Board of Supervisors.

Would the actions identified above have any budget implications? If so, please explain.

Amendments to Chapter 103 would be coordinated and prepared by existing staff. Whether local resources would be considered adequate by the SAPCB to enforce the amended ordinance, as proposed, is unclear.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

The above actions are linked to the County's Vision Element of Practicing Environmental Stewardship.

Additional Comments (if any):

The AQS workgroup on Codes & Regulations recommends waiting until the AQMP is completed before proceeding with the amendments to Chapter 103 in case any additional changes to Chapter 103 are recommended to implement the AQMP. However, if no additional changes are recommended to Chapter 103 by July 1, 2004, the County should proceed with the proposed amendments that have already been identified.

2004 Air Quality Protection Strategy Recommendation

Recommendation: Measures and Practices – B10 Outreach Program for County Residents- Mowing Equipment and Episodic Mowing.

Issue:

Encourage County residents to replace their two-cycle mowing equipment with four-cycle equipment or other lower emissions lawn equipment. Emissions from lawn mowers, chain saws, leaf vacuums, and similar outdoor power equipment are a significant source of pollution. Today's small engines emit high levels of carbon monoxide, a colorless, odorless, poisonous gas. They also emit hydrocarbons and nitrogen oxides, pollutants that contribute to the formation of ozone. Also educate the County residents on the issue of refraining from the use of lawn and garden equipment on Code Red Days.

Subcommittee Recommendation:

Develop an outreach program to educate county residents on the environmental hazards of two-cycle lawn and garden equipment and to recommend that their future purchases of string trimmers and back pack blowers or other two-cycle equipment should be the new lower emitting equipment. In addition to the purchase of new equipment, develop an education program to encourage the delay of the use of gasoline powered lawn and garden equipment on Ozone Action days (Code Red Days).

Rationale:

The volume of mowing/lawn equipment in the private sector warrants an outreach program. Benefits to the environment outweigh the minimal cost for an outreach program.

Lead agency for this response: Office of Public Affairs

Coordinating agency(ies) for this response: FCPA, DPWES,FCPS

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

Not implemented. This information would be given to residents at all local events and a booth dedicated to the education of environmental issues would be established at all County special events. Schools should also develop a program for elementary school students with handouts for take home.

Measures and Practices – B10 Continued

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

Action to be implemented during FY05

Would the actions identified above have any budget implications? If so, please explain.

Staff costs in creating the outreach program should be minimal and can be absorbed in existing budget allocations.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

The education and outreach to the residents of the County links directly to the Vision Element, Practicing Environmental Stewardship.

Additional Comments (if any):

2004 Air Quality Protection Strategy Recommendation

Recommendation: Measures and Practices – B11

County Replacement Program - Two Cycle Mowing Equipment.

Issue:

The replacement of county owned two cycle mowing equipment with lower emission four-cycle equipment or other equipment offered by manufacturers. Emissions from two cycle lawn mowers, chain saws, string trimmers, and similar outdoor power equipment are a significant source of pollution. Most, if not all, existing county owned two cycle engines emit high levels of carbon monoxide, a colorless, odorless, poisonous gas. They also emit hydrocarbons and nitrogen oxides, pollutants that contribute to the formation of ozone.

Subcommittee Recommendation:

All future purchases of string trimmers, back pack blowers and other mowing equipment utilized by county staff will be the new lower emitting brands. Manufacturers of lawn and garden equipment are now offering these units and agencies should educate their staffs on the new technology and how it can be best used within their departments.

Rationale:

The volume of mowing conducted by the county (via staff and contractors) warrants action. Benefits to the environment and EPA requirements outweigh incurred costs.

Lead agency for this response: FCPA

Coordinating agency (ies) for this response: **DPWES**

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

The recommendation is currently being implemented by the Park Authority and implementation is expected to be complete as the equipment is replaced through its replacement cycle. Other County Agencies are in the process of development and implementation of agency plans.

Measures and Practices – B11 Continued

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

This action is being implemented in the FCPA. As these mowing units are replaced the newer lower emitting units will be purchased. The FCPA is committed to researching the latest technology available at the time of purchase and purchasing those units best for the environment and that meet the needs of the agency.

Would the actions identified above have any budget implications? If so, please explain.

Replacement of this equipment will show a cost increase over previous equipment purchases. On average, this equipment costs 10-15% more than standard pieces of equipment. The increase will be absorbed in the existing budget allocations.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

Replacing the existing lawn and garden equipment inventory with lower emissions equipment is a direct link to the Vision Element, Practicing Environmental Stewardship.

Additional Comments (if any):

Autoweek, Oct. 27, 2003, p.29. states, "Drive a Ford Focus PZEV for 6700 miles and you generate as much pollution as does a typical gas-powered lawnmower for an hour."

Environmental Coordinating Committee's Air Quality Subcommittee 2004 Air Quality Protection Strategy Recommendation

Recommendation: Measures and Practices – B12 Green Procurement Policy.

Issue:

Integrate environmental considerations into all aspects of purchasing goods and services in a manner that will best support the environment while being cost effective to the citizens of the county and park patrons.

Subcommittee Recommendation:

The Subcommittee strongly endorses existing programs and policies aimed at reducing environmental impacts and believe that the existing programs should be publicized to our citizens and employees countywide. The Park Authority has implemented a 'green procurement' policy which can be used as a model for other agencies to follow. This policy provides guidelines on environmentally friendly purchasing for goods and services. The Purchasing Branch will help promote awareness, education and outreach for environmentally friendly products and services.

Rationale:

The FCPA is committed to enhancing our community's quality of life and to providing leisure opportunities for the citizens for now and in the future. Our commitment is directly related to our staff's leadership role by expanding awareness, appreciation and protection of our natural and cultural resources.

Lead agency for this response: FCPA

Coordinating agency(ies) for this response: FCWA; FCPS; DPWES; DPSM

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

The Green Procurement Policy is scheduled for FCPA Board approval on April 28, 2004.

Measures and Practices – B12 Continued

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

This policy requires FCPA Board Approval on April 28, 2004.

Would the actions identified above have any budget implications? If so, please explain.

Green Procurement initiatives may cost the FCPA more. We will have to review budget constraints on a case by case basis.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

Implementing a 'Green Procurement' policy is a direct link to the Vision Element, Practicing Environmental Stewardship.

Additional Comments (if any):

FCPA initiatives that could be adopted by other agencies:

- 1. A list of environmentally friendly cleaning products will be developed; contracts will be established and distributed to our sites.
- 2. Meetings and Broadcast E-mails on providing staff information on how to have an environmentally friendly meeting or event.
- 3. FCPA staff participation in the April 21, 2004, Earth Day Mini-expo for County Employees showcasing our Green Procurement Policy and initiatives to recycle and reduce waste.

2004 Air Quality Protection Strategy Recommendation

Recommendation: Measures and Practices – B13 Outreach Program for Gas Can Replacement.

Issue:

Portable fuel cans, like those used to fuel lawnmowers, account for a significant amount of VOC forming emissions escaping into the air every day. According to the U.S. Environmental Protection Agency, "...emissions from gas cans emit Volatile Organic Compounds (VOCs) every day—similar to the emissions of the average car..." Another concern with older fuel cans is the tendency for fuel spillage, with associated adverse groundwater and surface water impacts.

Subcommittee Recommendation:

Develop an outreach program to educate county residents and private sector businesses on the environmental hazards of certain fuel containers and recommend that the future purchases of fuel containers should be the lower VOC emitting cans. Replacing portable fuel cans with the new units will reduce VOCs.

Rationale:

The large number of fuel cans in the private sector warrants an outreach program Benefits to the environment outweighs the minimal cost for an outreach program

Lead agency for this response: Office of Public Affairs Coordinating agency(ies) for this response: DPWES; FCPA, FCPS

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

This information would be given to residents and businesses at all local events and possibly a booth dedicated to the education of environmental issues would be established at County special events. Development of this program would also involve soliciting cosponsors for these events with a local retailer to distribute the lower emitting fuel cans. Program should be developed for elementary school students with take home information.

Measures and Practices – B13 Continued

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

Action to be implemented during FY05

Would the actions identified above have any budget implications? If so, please explain.

Staff costs in creating the Outreach Program should be minimal and can be absorbed in existing budget allocations.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

The education of residents and businesses, through an Outreach Program, about environmental issues within the County, links directly to the Vision Element, Practicing Environmental Stewardship.

Additional Comments (if any):

With an assumption of one fuel can per single family household, the number of containers replaced would result in 1.7 tons of VOCs avoided per day. (184,156 cans x 0.00000922 average reduction per can [tpd]--this estimated figure does not include businesses such as landscape and tree companies).

2004 Air Quality Protection Strategy Recommendation

Recommendation: Measures and Practices – B14 Green Building.

Issue:

The term 'green building' refers to the philosophy of environmentally sensitive building practices, also known as 'sustainable construction.' These "green buildings" demonstrate the efficient use of energy, water and materials, limited impact on the outdoor environment and a healthier indoor environment for their inhabitants.

Subcommittee Recommendation:

Incorporate 'green building' practices into county new construction and renovation wherever feasible, to include, but not be limited to examples listed below.

Adopt a Sustainable Roofing Systems policy. A sustainable roofing policy would ensure that these technologies would be taken into consideration for future building design and construction projects.

Sustainability can be accomplished in any of five ways:

- recycled material
- materials that are, in themselves, recyclable
- service life
- promoting the more efficient use of energy and other natural resources
- renewing natural resources

Most popular solutions:

- Cool, highly reflective roofing (up to 40% cooling cost reduction, 20 plus year useful life)
- Metal roofing (up to 100% recyclable, no hazardous fumes during installation, 50+ year useful life)
- Modified bitumen membranes incorporating recycled materials (used tires)
- Materials and adhesives that reduce or eliminate hazardous fumes (cold application technology is VOC compliant with low odor)
- **Photovoltaic panel systems** (new source of power, 25 year or longer life span)
- **Green roofing** (reduced energy costs, reduced storm water runoff, dust reduction, air quality improvement, noise pollution reduction)

Measures and Practices – B14 Continued

Rationale:

Reduced energy consumption (which supports reduced air pollutant emissions), extended life spans and high recycled material content.

Lead agency for this response: FMD

Coordinating agency(ies) for this response: DPWES,FCPS,FCPA

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

County implementation is in the form of recycled tire shingles on several picnic shelters and replacing several standing seam painted metal roofs with light colored reflective prefinished metal roofs.

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

Would the actions identified above have any budget implications? If so, please explain.

Further research is needed to detail implications and/or savings with regard to budget issues. As an example of budget impacts, the cost for a sustainable roofing policy would depend on the type of system and options selected. Research done on green roofing systems reveal that the initial cost of building a green roof is approximately 25-35% higher than a conventional roof. However, life cycle costs for a green roof run approximately 30% less than conventional over a 30 year period.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

Incorporating 'Green Building' technology into the County's existing maintenance and renovation procedures, as well as new construction projects, links directly to the Vision Element entitled "Practicing Environmental Stewardship."

Additional Comments (if any):

Reflective roof systems and the incorporation of low VOC adhesives and other products would not increase project costs by more than 25-30%. Roofing systems on existing buildings were the main focus of this paper because they have a shorter life cycle than

Measures and Practices – B14 Continued

most other building systems and there can be substantial energy savings with "green" roofing materials as stated above. New construction better lends itself to other "green" technology such as waterless plumbing fixtures and water reclamation systems. These technologies are costly to retrofit existing buildings.

Metal roofing traditionally has a higher initial cost, however, the increased service life of the product of 50+ years delivers a lower life cycle cost compared to other less expensive systems. The pre-finished panels do require painting which eliminates the use o f oil based paint, reducing the VOCs released into the atmosphere.

2004 Air Quality Protection Strategy Recommendation

Recommendation: Measures and Practices – B15

Expand County's Metrochole Program to all County Em

Expand County's Metrochek Program to all County Employees.

Issue:

Since 1993, Fairfax County has provided \$60 per month in transit subsidies to employees at the Fairfax County Government Center. Employees can use Metrochek benefits to pay for transit fares or ridesharing expenses for commuting to and from work. Currently, 56 employees, or about five percent of the employees at the Government Center, participate in the program. If this program were expanded Countywide, a total of 637 employee would likely participate, based on the five percent use rate at the Government Center.

Subcommittee Recommendation:

The Air Quality Subcommittee of the Environmental Coordinating Committee recommends that the Board of Supervisors allocate \$418,320 to expand the \$60 Metrochek program to all County employees.

Rationale:

The proposed action will encourage additional transit usage, reduce use of single occupant autos and result in improved air quality. Offering this service is expected to generate an additional 637 transit trips. As a result, NOx emissions will be reduced by 0.008 tons per day, and VOC emissions will be reduced by 0.004 tons per day.

Lead agency for this response: FCDOT

Coordinating agency (ies) for this response: DHR

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

This program has been implemented at the Fairfax County Government Center Complex. Currently, the County provides a transit subsidy of up to \$60 per month for Government Center employees. There are 56 employees that are using the existing program. This represents about five percent of the employees that work at the Government Center Complex. For this analysis, it was assumed that if the program were expanded Countywide, the five percent participation rate would be retained.

Measures and Practices – B15 Continued

The current program is managed by the Department of Transportation. If the program is expanded Countywide an alternative strategy for distributing the Metrocheks would need to be developed.

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

If approved by the Board of Supervisors, the Department of Transportation would work with the Department of Human Resources to develop a Countywide implementation plan. For practical purposes, the implementation would most likely need to be staggered. The program could be implemented at buildings with the largest number of employees first.

Would the actions identified above have any budget implications? If so, please explain.

Yes, an additional \$418,320 would be needed to implement this recommendation. This would allow approximately five percent of the County's workforce to receive up to a \$60 transit benefit.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

This proposal could address two of the Countywide Vision Elements: Practicing Environmental Stewardship and Connecting People and Places.

Additional Comments (if any):

Federal law currently allows employers to provide a tax free transit benefit of up to \$100 per month to their employees. This recommendation is limited to \$60 per month per employee for financial reasons. To fund the \$100 per month transit benefit, \$723,200 would be required.

2004 Air Quality Protection Strategy Recommendation

Recommendation: Measures and Practices – B16

Provide Additional Transit Service (off-peak and weekend service).

Issue:

Supplying adequate transit service within the County provides an alternative to single occupant automobiles. Vehicle emissions are a significant source of pollution in the Washington metropolitan region. Providing additional transit service is one way to encourage those who currently drive alone to switch to transit.

Subcommittee Recommendation:

The Air Quality Subcommittee of the Environmental Coordinating Committee recommends that the Board of Supervisors allocate \$415,000 for additional off-peak and weekend bus service to be operated by the Fairfax Connector.

Rationale:

The proposed amount of bus service is expected to generate additional transit trips, thereby reducing the use of single-occupant automobiles, reducing emissions and improving air quality. Actual transit ridership and emissions reductions are being calculated.

Lead agency for this response: FCDOT Coordinating agency (ies) for this response:

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

No. The service contemplated by this recommendation would be new service.

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

If it appears likely that funding will be approved (i.e. funds are included in the County Executive's FY 2004 Carryover recommendations), FCDOT staff will begin planning the specifics of the new service. It will take approximately four months to develop the new

Measures and Practices – B16 Continued

schedules and to test them. It will take an additional three months to negotiate a contract amendment with the County's bus service contractor, change timetables, arrange for a new driver bid and address other requirements. In total, the new service could be implemented approximately seven months after the funding is approved.

Would the actions identified above have any budget implications? If so, please explain.

Yes, an additional \$415,000 would be needed to implement the proposed service.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

This proposal could address two of the Countywide Vision Elements: Practicing Environmental Stewardship and Connecting People and Places.

Additional Comments (if any):

Subsequent recommendations address cross county service and implementation of additional feeder service to the Vienna Metrorail Station from the I-66 corridor.

2004 Air Quality Protection Strategy Recommendation

Recommendation: Measures and Practices – B17

Provide Additional Transit Service (Enhanced feeder service to Vienna Metro).

Issue:

Supplying adequate transit service within the County provides an alternative to single occupant automobiles. Vehicle emissions are a significant source of pollution in the Washington metropolitan region. Providing additional transit service is one way to encourage those who currently drive alone to switch to transit. Parking at the Vienna Metrorail Station currently fills to capacity most weekdays. Some commuter parking spaces at the station may soon be replaced by adjacent development. Substantial opportunities exist to enhance existing feeder bus service out the I-66 corridor and to take advantage of underused park-and-ride capacity in the corridor.

Subcommittee Recommendation:

The Air Quality Subcommittee of the Environmental Coordinating Committee recommends that the Board of Supervisors approve additional feeder bus service from the I-66 corridor to the Vienna Metrorail Station to be operated by the Fairfax Connector.

Rationale:

The proposed amount of bus service is expected to generate an additional 350 transit trips. As a result, NOx emissions will be reduced by 0.004 tons, and VOC emissions will be reduced by 0.002 tons.

Lead agency for this response: FCDOT

Coordinating agency (ies) for this response: N/A

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

No. The service contemplated by this recommendation would be new service.

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

Measures and Practices – B17 Continued

FCDOT has already done some planning for this service and funding for the first year of service is available. It will take approximately four months to develop the new schedules and to test them. It will take an additional three months to conduct public meetings, obtain formal approval and address other requirements. In total, the new service could be implemented approximately six to eight months after the funding is approved.

Would the actions identified above have any budget implications? If so, please explain.

The first year operating cost for this service is funded with \$375,000 in state aid. Funding for the service in subsequent years would need to be taken from state aid or county General Funds.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

This proposal could address two of the Countywide Vision Elements: Practicing Environmental Stewardship and Connecting People and Places.

2004 Air Quality Protection Strategy Recommendation

Recommendation: Measures and Practices – B18 Support Rail to Dulles Airport.

Issue:

Given the significance of this project to the County, it is important that appropriate County resources be allocated to assist in implementing rail service from the vicinity of the West Falls Church Metrorail Station and Loudoun County through Tysons Corner, Reston, Herndon and Washington Dulles International Airport, This significant transit project will improve transit service in the County's "downtown" (Tysons Corner), as well as the major commercial and residential areas of Reston and Herndon. It was also provide a direct rail connection to the region's premier international airport. When complete, it is estimated that this project will serve 78,000 riders per day, thereby reducing emissions from single occupant autos in the corridor and throughout the region. To help coordinate the County's role in this project while not impacting other important transportation projects, the County needs to assign a staff person as a single point of contact for this project.

Subcommittee Recommendation:

The Air Quality Subcommittee of the Environmental Coordinating Committee recommends that the Board of Supervisors allocate adequate County staff resources to ensure that this project is implemented in the most expeditious manner possible.

Rationale:

The proposed Dulles rail project is the number one transportation priority for the County. Currently, the Dulles rail project is being staffed by several employees who have other responsibilities as well. While the project continues to proceed, staff believes that the process could be facilitated by appointing a single person to coordinate the project from a County prospective. This would be the employee's sole responsibility. Without this specific focus on the project, it is probable that project tasks will be delayed. The environmental analysis completed for this project found that

Lead agency for this response: FCDOT Coordinating agency (ies) for this response:

Measures and Practices – B18 Continued

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

See below.

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

The Virginia Department of Rail and Public Transportation has requested approval from the Federal Transit Administration (FTA) to initiate Preliminary Engineering (PE). Action by the FTA is expected soon after the Metro Board approves the revised Locally Preferred Alternative in mid-April. The PE phase of the project is most critical for coordination with the County. The Final Environmental Impact Statement for this project is expected to be approved by the end of 2004.

Would the actions identified above have any budget implications? If so, please explain.

Yes, a project manager with sufficient skill and experience would need to be hired in order to manage this project.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

This proposal could address two of the Countywide Vision Elements: Practicing Environmental Stewardship and Connecting People and Places.

2004 Air Quality Protection Strategy Recommendation

Recommendation: Measures and Practices – B19 Pedestrian Improvements on Leesburg Pike

Issue:

Reduce emissions from single occupant automobiles by constructing additional pedestrian improvements, including trails, sidewalks, and enhanced crosswalks, on Leesburg Pike in the Bailey's Crossroads and Seven Corners area. Such improvements will encourage residents and employees in the corridor to walk and use transit to travel to their daily activities, rather than driving.

Subcommittee Recommendation:

The Air Quality Subcommittee of the Environmental Coordinating Committee recommends that the Board of Supervisors allocate \$2 million to construct additional pedestrian improvements on Leesburg Pike in the Bailey's Crossroads and Seven Corners area. These funds would be used to fund approximately two miles of pedestrian improvements.

Rationale:

The Leesburg Pike Corridor between Bailey's Crossroad and Seven Corners is one of the most congested in the County. In addition, there are also a significant number of pedestrians in the area. As part of this project, the pedestrian facilities along the corridor will be upgraded to facilitate pedestrian traffic in the corridor and make transit stops more accessible. Currently, the pedestrian facilities in the corridor are non-existent or in poor condition. There are significant gaps in the network that create barriers and/or a disincentive to residents and employees to use transit or simply walk from one place to another. This recommendation will fund approximately two miles of improvements. Emissions benefits for these improvements are being calculated.

Lead agency for this response: FCDOT

Coordinating agency (ies) for this response: DPWES, VDOT

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

No, this would be a new pedestrian initiative.

Measures and Practices – B19 Continued

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

If this recommendation is approved, staff will seek consultant help in identifying the missing segments and facilities along Leesburg Pike. Once the needed improvements are identified, they will be prioritized. The consultant will design the highest priority items. This process would take at least one year after funding is provided.

Would the actions identified above have any budget implications? If so, please explain.

Yes, an additional \$2 million is requested.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

This proposal could address two of the Countywide Vision Elements: Practicing Environmental Stewardship and Connecting People and Places.

2004 Air Quality Protection Strategy Recommendation

Recommendation: Measures and Practices – B20 Evaluate and expand the County's energy conservation practices and develop a

comprehensive County-wide energy policy.

Issue:

Energy conservation results in the need to generate less electricity or utilize other energy sources such as natural gas. Reduced energy use therefore results in improved air and water quality and a lower annual energy budget.

Subcommittee Recommendation:

The subcommittee recommends that the county support and encourage energy conservation practices and that the county's energy conservation practices be continually reevaluated and expanded. The county should also develop a comprehensive countywide energy policy.

Rationale:

The county has at least seven different agencies that currently purchase energy for the buildings in their inventory. Those agencies include: Schools, Facilities Management Division, Wastewater Treatment, Park Authority, Department of Housing, Solid Waste and Line Maintenance Division. These agencies conduct energy conservation work to varying degrees. Currently, there is no overarching energy policy or program to target specific reductions and measure results. Given the diverse agencies involved, there is no one person who knows the cumulative utility budget for the county.

This recommendation is one in which the county's direct actions can have a positive impact on the environment. In addition, the county would also benefit from cost reductions associated with energy conservation practices.

Lead agency for this response: <u>DPWES/Facilities Management Division</u> Coordinating agency(ies) for this response: N/A

Measures and Practices – B20 Continued

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

The county has a continuing practice of evaluating energy conservation practices to varying degrees depending on the agency. An Energy Committee has been formed, with representatives of several agencies participating. The Facilities Management Division developed an energy policy with specific energy initiatives as a part of their strategic plan. Other agencies may also have their own plans for energy reductions.

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

The energy conservation plans for each agency should be evaluated and incorporated into a countywide energy policy.

Would the actions identified above have any budget implications? If so, please explain.

Evaluation of the county's energy conservation practices are being accomplished with current staff resources within some agencies. Implementation of energy initiatives require capital, but generally offer an attractive rate of return due to lower annual energy costs. For example, an energy related lighting project was completed in the Government Center costing \$497,000, and yielded annual savings of \$128,000. This equates to a rate of return of 25% or a simple payback of under four years.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

Energy conservation directly links to the county Vision Element for Practicing Environmental Stewardship.

2004 Air Quality Protection Strategy Recommendation

Recommendation: Measures and Practices – B21

Seek State Enabling Legislation that will minimize the loss of existing forest cover during

land development

Issue:

Existing forest ecosystems help to reduce smog by providing canopy to cool the ground and reduce the formation of ground-level ozone.

Subcommittee Recommendation:

The county should pursue enabling legislation that would allow a strengthening of the County's authority to require minimization of the loss of existing forest cover during land development.

Rationale:

By virtue of significantly higher biomass and leaf surface to acreage ratios, native tree ecosystems and their associated understory vegetation are vastly superior in the delivery of air pollution mitigation benefits as compared to the benefits delivered by equal areas of replanted tree cover.

Lead agency for this response: <u>DPWES - Urban Forestry</u>

Coordinating agency(ies) for this response: N/A

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

This recommendation has not been implemented.

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

The county should coordinate with other urbanized jurisdictions in Virginia in order to seek state enabling tree conservation legislation. The language can be draft for county consideration for inclusion in its 2005 legislative package.

Measures and Practices – B21 Continued

Would the actions identified above have any budget implications? If so, please explain.

No direct budget implications; staff can prepare required documents.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

This recommendation directly links to the county's Vision Element concerning Practicing Environmental Stewardship.

Additional Comments (if any):

Amount of Major Air Pollutants Estimated to be intercepted by Tree Canopy in 1997 and 2004.

Pollutant	Pounds. intercepted/stored annually by 1997 tree cover	Pounds projected for present canopy
Ozone	3,184,976.72	2,997,063.09
Sulfur dioxide	787,372.39	740,917.42
Nitrogen dioxide	1,312,075.99	1,234,663.50
Particulate matter	2,653,826.91	2,497,251.12
Carbon monoxide	331,223.50	311,681.31
Total	8,269,475.50	7,781,576.44

CATEGORY C Measures Being Developed by Staff for Future BOS Consideration

2004 Air Quality Protection Strategy Recommendation

Recommendation: Codes - C1

Relief of Personal Property Taxes for Clean Fuel Motor Vehicles.

Issue:

Hybrid or alternative fueled vehicles help to improve air quality through cleaner emissions than most conventional vehicles. However, they are generally priced higher than comparably sized motor vehicles.

Subcommittee Recommendation:

The Subcommittee recommends that the county continue to explore the possibility of establishing a special classification for clean fuel motor vehicles.

Rationale:

Relief from personal property taxes will offset, in part, the costs of purchasing hybrid or alternative fueled vehicles. This financial incentive may encourage some residents and businesses to purchase such vehicles, although the savings to individuals due to the phasing out of the car tax may not be significant. There may be a more substantial savings for businesses.

Lead agency for this response: OCA/DTA

Coordinating agency(ies) for this response: DVS, DMB, Air Quality Subcommittee

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

This recommendation has not been implemented to date in Fairfax County.

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

Fairfax County currently imposes personal property tax on most motor vehicles at the rate of \$4.57 per \$100 of value. Va. Code Ann. § 58.1-3506(A)(20) permits the County to establish a separate tax classification for motor vehicles that use clean special fuels as defined in Va. Code

Codes – C1 Continued

Ann. § 46.2-749.3. That section defines "clean special fuel" as "any product or energy source used to propel a highway vehicle, the use of which, compared to conventional gasoline or reformulated gasoline, results in lower emissions of oxides of nitrogen, volatile organic compounds, carbon monoxide or particulates or any combination thereof. The term includes compressed natural gas, liquefied natural gas, liquefied petroleum gas, hydrogen, hythane (a combination of compressed natural gas and hydrogen), and electricity." Fairfax County currently does not have a separate classification for vehicles that use clean special fuel. A special category for these vehicles would enable the Board to establish a separate tax rate (higher or lower than the current \$4.57 per \$100 of assessed value). Fairfax County currently taxes certain vehicles at a rate of one cent per \$100, including antique automobiles, certified van pool vehicles, vehicles equipped to transport persons with disabilities, some vehicles owned by members of volunteer fire and rescue squads and auxiliary police, and vehicles owned by certain elderly and disabled individuals.

Staff recommends an ongoing analysis of what vehicles would be eligible for this "clean fuels" classification, the number of these vehicles in Fairfax County, the breakdown of these vehicles as commercial or non-commercial, and a forecast of the potential revenue loss were the Board to adopt the classification and tax these vehicles at a reduced rate. Staff would also need to analyze the administrative implementation of the new classification. Due to the need for further analysis and budget advertising requirements, this relief could next be considered for the FY 2006 budget.

Would the actions identified above have any budget implications? If so, please explain.

The above actions would reduce the personal property tax revenue. Pending further analysis of the number of vehicles that would be eligible for a reduced rate, and whether these vehicles are commercial or non-commercial, the potential revenue loss is unclear.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

The above actions are linked to the Vision Element of Practicing Environmental Stewardship.

Additional Comments (if any):

Other incentives are already in place for owners of vehicles that fit the State definition for "special fuels vehicles." These include a Federal tax deduction for qualified vehicles for U.S. individual income tax payers and the authorized use of HOV lanes without meeting the multiple passenger requirement for certain vehicles. Not all hybrid vehicles qualify for these incentives, and there is a possibility that these incentives may be phased out.

'2004' Air Quality Protection Strategy Recommendation

Recommendation: Public Education and Outreach - C2

Issue:

Children comprise one of the groups that is most susceptible to lung damage as a result of high concentrations of ground level ozone. It is important to find a way to educate the children and their parents about the dangers to them on Code Orange and Code Red Days so that they will be willing to work to reduce ground level ozone levels.

Subcommittee Recommendation:

Find ways to incorporate information about air quality efforts into the school science curriculum. The revised Science SOL associated with air pollution is given in sixth grade, under Resources: 6.9, "The student will investigate and understand possible policy decisions relating to the environment." Key concepts include management of renewable resources (water, air, soil, plant life, animal life.)

Rationale:

This curriculum would provide key messages regarding air quality to one of the audiences that is most affected by this issue: children.

Lead agency for this response: OPA

Coordinating agency(ies) for this response:FCPS

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

This recommendation has not yet been implemented, and it should be considered for future implementation.

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

See above.

Public Education and Outreach – C2 Continued

Would the actions identified above have any budget implications? If so, please explain.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

Using brochures to reach out to the county's children to help spread awareness of the importance of taking ozone-reducing actions links directly to the Vision Element, Practicing Environmental Stewardship.

Environmental Coordinating Committee's Air Quality Subcommittee'2004' Air Quality Protection Strategy Recommendation

Recommendation: Public Education and Outreach - C3

Issue:

Businesses can make a big difference in regional levels of ground level ozone. It is important to find a way to educate business owners of the dangers of Code Orange and Code Red Days, as well as the impact that businesses can have on air quality, so that they will be willing to work to reduce ground level ozone levels.

Subcommittee Recommendation:

Send a packet of information to all businesses in Fairfax County to tell them about Clean Air Partners and actions they can take on Code Red Days. In the future, this packet of information could be given out to new businesses when they get a business license or at some other point in their process of starting a business in the county.

Identify which businesses are involved with Clean Air Partners. Use these as examples in promoting the program. Also, they could be eliminated from mailings.

Rationale:

Lead agency for this response: OPA Coordinating agency(ies) for this response:

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

This recommendation has not yet been implemented, and it should be considered for future implementation.

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

See above.

Public Education and Outreach – C3 Continued

Would the actions identified above have any budget implications? If so, please explain.

A mailing of this magnitude would have costs from printing the packets, as well as from the postage to reach the businesses.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

Reaching out to businesses to help spread awareness of the importance of taking ozone-reducing actions links directly to the Vision Element, Practicing Environmental Stewardship.

Environmental Coordinating Committee's Air Quality Subcommittee'2004' Air Quality Protection Strategy Recommendation

Recommendation: Public Education and Outreach - C4

Issue:

Children comprise one of the groups that is most susceptible to lung damage as a result of high concentrations of ground level ozone. It is important to find a way to educate the children about the dangers to them on Code Orange and Code Red Days so that they will be willing to work to reduce ground level ozone levels and be careful on Ozone Action Days.

Subcommittee Recommendation:

Work with the scouts to find ways that Environmental Merit Badges could be tied into ozonerelated efforts.

Rationale:

This tie in to the scouts would provide key messages regarding air quality to one of the audiences that is most affected by this issue: children. In particular, children who are more likely to be civic minded and concerned with the environment would be reached.

Lead agency for this response: OPA Coordinating agency(ies) for this response:

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

This recommendation has not yet been implemented, and it should be considered for future implementation.

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

See above.

Public Education and Outreach – C4 Continued

Would the actions identified above have any budget implications? If so, please explain.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

Reaching out to the county's children to help spread awareness of the importance of taking ozone-reducing actions links directly to the Vision Element, Practicing Environmental Stewardship.

Environmental Coordinating Committee's Air Quality Subcommittee'2004' Air Quality Protection Strategy Recommendation

Recommendation: Public Education and Outreach - C5

Issue:

The County needs to find ways at County sites to raise awareness among patrons and employees of Ozone Action Days when those days occur.

Subcommittee Recommendation:

Place Clean Air Partners signs and posters that say "Tomorrow is an Ozone Action Day" in the lobbies of government centers and other point of contact sites to notify staff and residents of how to modify their behaviors on these days.

Rationale:

There is such heavy traffic in County buildings, this is a great way to get the word out to people frequenting them as to how to take episodic actions in response to Ozone Action Days.

Lead agency for this response: OPA Coordinating agency(ies) for this response:

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

This recommendation has not yet been implemented, and it should be considered for future implementation.

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

See above.

Would the actions identified above have any budget implications? If so, please explain.

Creating and printing the signs would have some cost associated with them.

Public Education and Outreach – C5 Continued

Describe the linkage of the actions identified above to the Countywide Vision Elements.

Reaching out to the County's residents to help spread awareness of the importance of taking ozone-reducing actions links directly to the Vision Element, Practicing Environmental Stewardship.

Environmental Coordinating Committee's Air Quality Subcommittee'2004' Air Quality Protection Strategy Recommendation

Recommendation: Public Education and Outreach - C6

Issue:

Developers can make a big difference in regional levels of ground level ozone. It is important to find a way to educate them to the dangers on Code Orange and Code Red Days and the impact they can make, so that they will be willing to work to reduce ground level ozone levels.

Subcommittee Recommendation:

Prepare an education program for developers to illustrate ways that good environmental design pays off in marketability, and that there are already incentives for such designs.

Rationale:

Lead agency for this response: OPA Coordinating agency(ies) for this response:

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

This recommendation has not yet been implemented, and it should be considered for future implementation.

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

See above.

Would the actions identified above have any budget implications? If so, please explain.

More analysis is needed in order to answer this question.

Public Education and Outreach – C6 Continued

Describe the linkage of the actions identified above to the Countywide Vision Elements.

Reaching out to businesses to help spread awareness of the importance of taking ozone-reducing actions links directly to the Vision Element, Practicing Environmental Stewardship.

Environmental Coordinating Committee's Air Quality Subcommittee'2004' Air Quality Protection Strategy Recommendation

Recommendation: Measures and Practices – C7

Issue:

Consider the purchase of wind energy in order to improve air quality in the region and aid in the development of a countywide Air Quality Management Plan.

Subcommittee Recommendation:

Pursue the purchase of Wind Energy to aid in meeting EPA's air quality standards through the State Implementation Plan (SIP).

Rationale/Background:

For more than three decades, local governments in Virginia have jointly negotiated rates, terms and conditions of service for electric power rates with Dominion Virginia Power (Dominion). This group, formerly known as the VML/VACo Joint Steering Committee and now known as VEPGA (Virginia Energy Purchasing Governmental Association), has negotiated many millions of dollars in annual savings for Virginia local governments. Other functions of VEPGA include the procurement of electricity in a competitive market, and the monitoring of legal and regulatory developments affecting the provision of electricity service to local governments.

The principal purpose for establishment of VEPGA in 2002 as a Joint Purchasing Association was to establish a separate legal entity that would allow local governments to jointly procure electricity in a competitive market, at a price that presumably would be lower than the price offered by the incumbent provider. VEPGA's current by-laws state that members must procure all their electricity supplies through VEPGA, and prohibit the purchase of power that is in excess of prices offered by the incumbent (Dominion).

It has recently become apparent to local governments that a variety of mechanisms will be needed in order to improve air quality standards in the region and thus meet the EPA Air Quality standards, and that the purchase of Wind Energy may be a significant element in that mix. Since the purchase of power from wind sources is more expensive than power currently provided by the incumbent utility (Dominion), local governments in Virginia are currently precluded from purchasing Wind Power. Thus, VEPGA's by-laws need to be amended to allow local governments to purchase power priced at a premium above the incumbent utility's price in order to help meet EPA air quality standards.

Measures and Practices – C7 Continued

Fairfax County Lead agency for this response: <u>Department of Cable Communications and Consumer Protection (DCCCP)</u>

Coordinating agency(ies) for this response:

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

No, this recommendation has not yet been implemented. However, county staff (the Utility Analyst in DCCP) is a member of VEPGA's Board of Directors and serves in a leadership role (Board Vice Chair, and Chair of the Policy and Procedures Subcommittee), and has taken the initiative to schedule a vote to amend the by-laws that would enable VEPGA members to jointly purchase Wind Energy (Green Power). The Board of Directors is expected to approve this by-law change at its annual meeting scheduled for April 23, 2004. If this by-law change is approved, local governments will have the option to pursue the purchase of Wind Power, the price of which will likely be in excess of the incumbent utility's standard offer, in order to meet EPA air quality standards.

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

Steps to implement:

- Passage by VEPGA Board of Directors of a by-law amendment to enable purchase of Wind Power (vote scheduled for April 23, 2004)
- Issuance of an RFP through VEPGA to purchase Wind Power
- Funding through annual appropriation
- Contracting through VEPGA

Timing:

Fund/Implement FY06

Would the actions identified above have any budget implications? If so, please explain.

Yes, based on FY00 usage values:

Total County use = 542,112,600 KWh or 298,254,000 (not including schools)

FMD only in FY03 = 114,900,000 KWh

Assume a cost increase of from \$.016 to \$.020 per KWh to purchase Wind Power.

Measures and Practices – C7 Continued

If 5% of FMD use only is Wind Power, then 5,745,000 KWh @ \$.018 = \$103,419 per year

Describe the linkage of the actions identified above to the Countywide Vision Elements.

Environmental Stewardship

Additional Comments (if any):

.002 tons per day (annual average) NOx reduction per 1,000,000 KWh alternate energy purchase

Environmental Coordinating Committee's Air Quality Subcommittee'2004' Air Quality Protection Strategy Recommendation

Recommendation: Measures and Practices – C8 County taking control of commercial trash pick-up operations.

Issue:

Evaluate the county taking control of commercial trash pick-up operations. County control would serve to minimize redundant routes among competitors and allow the county to specify the use of cleaner burning equipment (trucks) used in county contracts.

Subcommittee Recommendation:

The subcommittee recommends continued evaluation of this alternative, because of the potential positive environmental benefits.

Rationale:

The county's current solid waste collection system is inefficient in many parts of the county. Individual homeowners contracting for collection service results in three or four trash companies each making five or more trips a week through a neighborhood. By consolidating service through county contracting, the more efficient collection operations would have a positive effect on the air quality as well.

Lead agency for this response: DPWES - Solid Waste Management Program

Coordinating agency(ies) for this response: County Attorney and Purchasing

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

This recommendation is contained in the county's draft Solid Waste Management Plan that will be going to public hearing on May 10, 2004. Upon Plan adoption, various implementation steps, including the state required five year notice to private haulers, will be undertaken. Therefore, full implementation of this recommendation may take over five years.

Measures and Practices – C8 Continued

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

N/A

Would the actions identified above have any budget implications? If so, please explain.

Consolidation of trash collection service is expected to result in lower overall costs to many residents of the county. Additional staff will be required to implement and manage this recommendation; however, in the long-term these added costs, which will be passed on to customers through the collection fees that will be charged, will be offset by the savings resulting from the competitive contracting process.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

This has a direct link to the county's Vision element for Environmental Stewardship.

'2004' Air Quality Protection Strategy Recommendation

Recommendation: Measures and Practices – C9 Continue to track the development of alternative fuels and recommend implementation as appropriate.

Issue:

On- and off-highway gas and diesel powered vehicles are a major source of ozone precursors and other pollutants. Alternative fuels can reduce the level of pollutants in engine exhaust.

Subcommittee Recommendation:

The Subcommittee recommends implementation of this measure by continuing to stay up to date on developments in alternative fuel vehicles. The County should consider incorporation of new alternative fuel vehicles into the fleet when cost, air quality benefit, and logistical considerations indicate opportunity for worthwhile investment.

Rationale:

Each currently available alternative fuel offers attractive air quality benefits. Each also carries substantial cost or logistical burdens. No alternative fuel presently offers an opportunity attractive enough for the Subcommittee to recommend substantial investment. As the technologies advance, trade-offs may improve to a point warranting such investment.

Lead agency for this response: <u>DVS</u> Coordinating agency(ies) for this response:

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

DVS maintains contacts with advocates and vendors of available and developing alternative fuels and with users of available fuels. No additional actions needed at present.

Measures and Practices – C9 Continued

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

Would the actions identified above have any budget implications? If so, please explain.

The recommendation has no immediate budget implications. If and when a recommendation emerges to invest in new alternative fuel vehicles, the recommendation will include budget implications for the proposed action.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

This measure supports the Countywide Vision Element of Practicing Environmental Stewardship by reducing adverse impact on air quality. Depending on which fuel the County adopts, future recommendations might also promote Exercising Corporate Responsibility for County Resources and Results by conservation of fiscal and energy resources.

'2004' Air Quality Protection Strategy Recommendation

Recommendation: Measures and Practices – C10

Continue to explore fuel additives to reduce emissions and recommend implementation as appropriate.

Issue:

On- and off-highway gas and diesel powered vehicles are a major source of ozone precursors and other pollutants. Fuel additives can reduce the level of pollutants in engine exhaust.

Subcommittee Recommendation:

The Subcommittee recommends implementation of this measure by continuing to stay up to date on developments in fuel additives. The County should consider use of new fuel additives when cost, air quality benefit, and logistical considerations indicate opportunity for worthwhile investment.

Rationale:

Certain currently available fuel additives offer attractive air quality benefits. Each also carries substantial cost or logistical burdens. No fuel additive presently offers an opportunity attractive enough for the Subcommittee to recommend substantial investment. As the technologies advance, trade-offs may improve to a point warranting such investment.

Lead agency for this response: <u>DVS</u> Coordinating agency(ies) for this response:

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

DVS maintains contacts with advocates and vendors of available and developing fuel additives and with users of available additives. No additional actions needed at present.

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

Measures and Practices – C10 Continued

Would the actions identified above have any budget implications? If so, please explain.

The recommendation has no immediate budget implications. If and when a recommendation emerges to invest in new fuel additive, the recommendation will include budget implications for the proposed action.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

This measure supports the Countywide Vision Element of Practicing Environmental Stewardship by reducing adverse impact on air quality. Depending on which additive the County adopts, future recommendations might also promote fuel conservation.

2004 Air Quality Protection Strategy Recommendation

Recommendation: Measures and Practices – C11
Provide Additional Transit Service (Such as Cross County service).

Issue:

Supplying adequate transit service within the County provides an alternative to single occupant automobiles. Vehicle emissions are a significant source of pollution in the Washington metropolitan region. Providing additional transit service is one way to encourage those who currently drive alone to switch to transit. One route, in particular, that has been discussed in some detail is cross county bus service from the Springfield area to the Dulles Corridor; however, there are also other transit services throughout the county that could be implemented or enhanced.

Subcommittee Recommendation:

The Air Quality Subcommittee of the Environmental Coordinating Committee recommends that the Board of Supervisors explore the feasibility of funding additional transit service as recommended in the WMATA Regional Bus Study.

Rationale:

The Regional Bus Study, completed by WMATA in 2003, identified a number of issues and deficiencies related to bus service in Fairfax County. It suggests that that transit services in the County have not kept up with the region's growth. Accordingly, it recommends specific service strategies to serve these growing markets and to improve connections to regional rail and activity centers.

Lead agency for this response: FCDOT

Coordinating agency (ies) for this response: WMATA (Metrobus)

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

No. The service contemplated by this recommendation would be new service.

Measures and Practices – C11 Continued

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

Recommendations from the Regional Bus Study would need to be prioritized through a technical and a public participation process. If funding were allocated to the highest priority services, implementation would take from 6 to 24 months depending on whether procuring new vehicles was required for the service.

Would the actions identified above have any budget implications? If so, please explain.

Yes, the cost would depend on the hours and miles of new service being implemented and on whether the County or Metrobus operated the service. Overall, the near-term recommendations of the Regional Bus Study for Outer Virginia (Fairfax and Loudoun) are expected to require 78 additional peak buses. Annual resource requirements would be approximately 325,000 vehicle revenue hours at a cost of \$32 million.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

This proposal could address two of the Countywide Vision Elements: Practicing Environmental Stewardship and Connecting People and Places.

2004 Air Quality Protection Strategy Recommendation

Recommendation: Measures and Practices – C12 Provide Free Bus Rides on Code Orange Days.

Issue:

Currently, the region provides free bus service on Code Red Days (days on which high levels of ozone are predicted). The goal is to reduce vehicle emissions from single occupant autos on these days, in particular, to help to region stay within its emissions budgets. Code Red days usually result from several days of very high temperatures and a northwest to southeast wind flow. As a result, the projected Code Red days are often preceded by one or more Code Orange days. This proposed action would make all Fairfax Connector buses free on predicted Code Orange days, in addition to predicted Code Red days. This action would result in lower vehicle emissions on predicted Code Orange days which could help to prevent these days from actually becoming Code Red days, and it would reduce the chances of having a Code Red day during a series of warm, humid summer days.

Subcommittee Recommendation:

The Air Quality Subcommittee of the Environmental Coordinating Committee recommends consideration of this proposal. However, it would be more beneficial and easier for the public to understand if the other transit providers in Northern Virginia also provided free bus service on Code Orange days.

Rationale:

The proposed action will encourage additional transit usage on predicted Code Orange days, thereby reducing emissions on some of the most polluted days of the year. This action will also be helpful in preventing Code Red days. Offering this service is expected to generate an additional 2,780 transit trips on Code Orange days. As a result, NOx emissions will be reduced by 0.03 tons per day, and VOC emissions will be reduced by 0.02 tons per day.

Lead agency for this response: FCDOT Coordinating agency (ies) for this response: N/A

Has this recommendation already been implemented, or is it in the process of being implemented? If so, please provide details. If the recommendation is in the process of being implemented, please identify the remaining implementation actions that are needed.

No. Currently, bus service is only free on Code Red days.

Measures and Practices – C12 Continued

If the recommendation has not been implemented or is not being implemented, please outline, in detail, the actions that would be appropriate/needed to implement the recommendation. Include anticipated time frames and participants in the implementation actions.

If it appears likely that funding will be approved (i.e. funds are included in the County Executive's FY 2004 Carryover recommendations), FCDOT staff will begin planning the specifics for implementing this recommendation. If funding is made available by May 1, 2004, the recommendation could be implemented this ozone season (May to September). If funding is not available until the FY 2004 Carryover, this recommendation could be implemented for next year's ozone season.

Would the actions identified above have any budget implications? If so, please explain.

Yes, an additional \$112,000 would be needed to implement this recommendation. This number is based on an average of eight Code Orange days per year over the past three ozone seasons. The estimated Fairfax Connector passenger revenue per day is \$14,000. These figures are based on the one-hour standard. In 2004 the eight-hour standard will be the new standard, and it is more stringent, which could result in a higher number of Code Orange days.

Describe the linkage of the actions identified above to the Countywide Vision Elements.

This proposal could address two of the Countywide Vision Elements: Practicing Environmental Stewardship and Connecting People and Places.

Additional Comments (if any):

From a public information perspective, there may be some benefit to working with other local jurisdictions that operate transit services, particularly in Northern Virginia, to see if there is any interest in undertaking a regional program. If there is interest, it is possible that Congestion Mitigation and Air Quality (CMAQ) funds could be used to implement the program in the future. Currently, CMAQ funds are used to fund the free bus rides on predicted Code Red days.